

EPA Registration Number 11195-1 Vol 2

Material to be added to an e-Jacket/Jacket

Reg. No. 11195-1

1. ☐ Placement within the e-Jacket/jacket:

- ☐ Default: (chronological, top/newest)
 - ☐ Description: (PDF page number, i.e., "before page 45")
-
-

2. ☐ Send to Data Extraction contractors this material:

- ☒ Newly stamped accepted label and letter 5/27/08
- ☐ Notification
- ☐ New CSF
- ☐ Other: _____

3. Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer's Name: Tony KISH

Phone: 308-9443 Division: RD

Date: 8/19/08



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MAY 27 2008

Ms. Terri Siemer-Aal
Agent for Snowden Enterprises, Inc.
1036 "G" Street
Reedley, CA 93654

**Subject: Application for Amended Label for The Fruit Doctor
EPA Reg. No. 11195-1
Your Submission of February 27, 2008**

Dear Ms. Siemer-Aal:

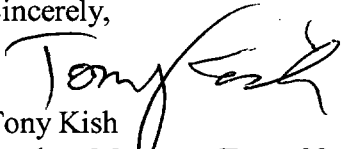
The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, to modify the product Application Manual according to my 2/4/08 email (attached), is acceptable, provided a final printed Master Label is submitted with the changes listed below within 45 days. For clarification, my 2/4/08 email refers to The Fruit Doctor label, although your cover letter of 2/27/08 refers to amending the Application Manual. In the Agency's view, the Application Manual is a part of The Fruit Doctor "Master Label", and the Agency has treated the submission as a request for a Master Label amendment.

Changes to Master Label:

1. Change "... Snowden Enterprises, Inc., system." to "... Snowden Enterprises, Inc." at the bottom of page 6, the bottom of page 7, and the top of page 8.
2. Configure the Master Label on file with the EPA as a cylinder label, a user label, and the Application Manual, consecutively paginated with the cylinder label as page 1, the user label as page 2, the first page of the Application Manual as page 3, and so on. Your printed label may paginate the Application Manual starting at page 1.

One copy of the Master Label stamped "Accepted with Comments" is enclosed for your records. Submit one copy of the final printed labeling the sooner of 45 days, or before you release the product for shipment. Contact Bob Tomerlin of my staff at 703-305-0598 (tommerlin.bob@epa.gov), or me at 703-308-9443 (kish.tony@epa.gov) if you have any questions regarding this approval.

Sincerely,


Tony Kish
Product Manager, Team 22
Fungicide Branch
Registration Division (7505P)

Enclosures: One label stamped "Accepted with Comments"
Copy of Kish 2/4/08 email

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT: Sulfur Dioxide..... 100%

KEEP OUT OF REACH OF CHILDREN

DANGER  **PELIGRO**
POISON

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID

If inhaled	- Move person to fresh air. - If person is not breathing, call 911 or an ambulance, then give artificial respiration, Preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. - Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin. - DO NOT apply any chemicals or ointments/lotions to damaged skin. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	- DO NOT wear contact lenses when working with or around sulfur dioxide. - Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. - DO NOT apply any chemical or ointment to the eyes. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If Swallowed	- (LIQUID SULFUR DIOXIDE) - Call a poison control center or doctor immediately for treatment advice. - Have person sip a glass of water if able to swallow. - Do not induce vomiting. - Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents:

(See Attached Tag for Pounds Sulfur Dioxide Net Contents)

ACCEPTED
with COMMENTS
In EPA Letter Dated

MAY 27 2008

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

11195-1

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER**

PRESSURIZED LIQUID GAS
**HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF
SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water on any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR
COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT: Sulfur Dioxide..... 100%

KEEP OUT OF REACH OF CHILDREN

DANGER



PELIGRO

POISON

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide.- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA REG. NO. 11195-1

EPA EST. NO. 11195-CA-1 or 2

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**SEE APPLICATION
MANUAL DESCRIBING USE
OF FRUIT DOCTOR SULFUR
DIOXIDE - THIS PRODUCT IS
ACCOMPANIED BY AN
APPROVED APPLICATION
MANUAL. READ AND
UNDERSTAND THE ENTIRE
LABELING (LABEL AND
APPLICATION MANUAL)
BEFORE USING THIS
PRODUCT. CONTACT
SNOWDEN ENTERPRISES,
INC. TO OBTAIN A
REPLACEMENT COPY OF
THE APPLICATION
MANUAL.**

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.
2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, to the extent consistent with applicable law, Snowden's liability is limited to replacement of product or refund of purchase price. In no event shall Snowden be liable for indirect or consequential damages.

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

FRUIT
DOCTOR
LOGO

THE FRUIT DOCTOR APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

DANGER – PELIGRO



POISON

PRESSURIZED LIQUID GAS KEEP OUT OF REACH OF CHILDREN

Hazardous vapor and liquid – Liquid causes burns of skin and eyes. Fatal if inhaled in high concentrations. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear coveralls over long sleeved shirt and long pants, chemical resistant boots and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. DO NOT apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. DO NOT apply any chemical or ointment to the eyes. DO NOT wear contact lenses when working with or around sulfur dioxide. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements

for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period. It is recommended that any time SO₂ gassing is occurring, that the area be monitored for SO₂ levels at all times.

PERSONAL PROTECTIVE EQUIPMENT

Protective Clothing

Wear long-sleeved shirt and long pants, gloves and boots when handling this product. Until braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body protective clothing impervious to sulfur dioxide, and gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

Respiratory Protection

If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube, Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator. No one should enter a high SO₂ concentration area using a short-term full-face respirator because these only have a limited capacity for protection. It is not possible for someone working in a high SO₂ concentration area to know when the limit of a full-face respirator has been reached.

POSTING OF FUMIGATION SITES

Before fumigation, the applicator must post markings at all entrances to the fumigated areas with signs bearing the following statements in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

RE-ENTRY AFTER FUMIGATION

After fumigation, treated areas must be undisturbed until the level of sulfur dioxide is at or below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

STORAGE AND DISPOSAL, SPILL AND LEAK PROCEDURES

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use.

Pesticide Disposal – Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal - When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Do not use cylinders for any other purpose. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air

supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote airflow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by Botrytis cinerea. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow on a 7-10 day interval. For fruit being shipped to market soon

after harvest, SO₂ fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO₂ through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO₂ saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficiency. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO₂ from the recirculating air to equal the rate of removal by direct venting.

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:

Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the bottle to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY – LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc., system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize effects of non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels - Using Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production: Fumigate the cork to reduce effects of non-public health fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

Snowden/SO₂label/ 9-07

1036 "G" Street
Reedley, CA 93654
Telephone (559) 637-4576
FAX (559) 637-4578
Aalterri@aol.com

June 18, 2008

Mr. Tony Kish
Product Manager, Team 22
Fungicide Branch
Registration Division (7505P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Certified Mail:
Document Processing Desk
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

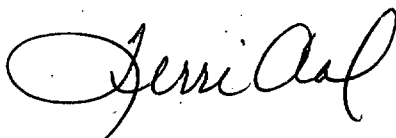
Subject: Snowden Enterprises, Inc.
The Fruit Doctor, EPA Reg. No. 11195-1
Response to EPA letter dated May 27, 2008-Final Master label

Dear Mr. Kish:

On behalf of Snowden Enterprises, Inc. we are responding to your letter dated May 27, 2008, which requires a final Master label consecutively paginated and amended per comments 1 and 2 be submitted. Per this request, an amended Fruit Doctor Master label is attached.

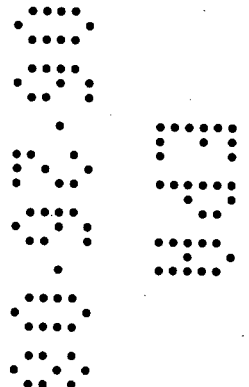
Thank you for your assistance with this amendment. If you have any questions regarding the enclosed, please contact me.

Sincerely,



Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

0106/4049/EPAKish





United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number Snowden Enterprises, Inc./11195-1	2. EPA Product Manager Tony Kish	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Snowden Enterprises, Inc./The Fruit Doctor	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) Snowden Enterprises, Inc. c/o Terri Siemer-Aal Regulatory Consulting 1036 G Street, Reedley, CA 93654 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: <input checked="" type="checkbox"/> EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated May 27, 2008
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

In response to Agency letter dated May 27, 2008, final master labels amended per EPA comments and consecutively paginated are enclosed.

Contact information: Terri Siemer-Aal, (559) 637-4576 or Aalterri@aol.com

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Terri Siemer-Aal	Title Regulatory Consultant	Telephone No. (Include Area Code) (559) 637-4576
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Consultant	
4. Typed Name Terri Siemer-Aal	5. Date 6-18-2008	

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to _____ and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT: Sulfur Dioxide..... 100%

KEEP OUT OF REACH OF CHILDREN



DANGER

PELIGRO

POISON

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID

If inhaled	- Move person to fresh air. - If person is not breathing, call 911 or an ambulance, then give artificial respiration, Preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. - Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin. - DO NOT apply any chemicals or ointments/lotions to damaged skin. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	- DO NOT wear contact lenses when working with or around sulfur dioxide. - Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. - DO NOT apply any chemical or ointment to the eyes. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If Swallowed	- (LIQUID SULFUR DIOXIDE) - Call a poison control center or doctor immediately for treatment advice. - Have person sip a glass of water if able to swallow. - Do not induce vomiting. - Do not give anything by mouth to an unconscious person.

NOTES: • Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
• In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

MASTER LABEL – Page 1

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER

PRESSURIZED LIQUID GAS
HAZARDOUS VAPOR AND LIQUID – LIQUID CAUSES BURNS OF SKIN AND EYES.

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water on any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR
COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT: Sulfur Dioxide..... 100%

KEEP OUT OF REACH OF CHILDREN

DANGER



PELIGRO

POISON

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide.- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA REG. NO. 11195-1

EPA EST. NO. 11195-CA-1 or 2

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

SEE APPLICATION MANUAL DESCRIBING USE OF FRUIT DOCTOR SULFUR DIOXIDE – THIS PRODUCT IS ACCOMPANIED BY AN APPROVED APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.
2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, to the extent consistent with applicable law, Snowden's liability is limited to replacement of product or refund of purchase price. In no event shall Snowden be liable for indirect or consequential damages.

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

DANGER – PELIGRO



POISON

PRESSURIZED LIQUID GAS KEEP OUT OF REACH OF CHILDREN

Hazardous vapor and liquid – Liquid causes burns of skin and eyes.

Fatal if inhaled in high concentrations. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear coveralls over long sleeved shirt and long pants, chemical resistant boots and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. DO NOT apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. DO NOT apply any chemical or ointment to the eyes. DO NOT wear contact lenses when working with or around sulfur dioxide. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements

for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period. It is recommended that any time SO₂ gassing is occurring, that the area be monitored for SO₂ levels at all times.

PERSONAL PROTECTIVE EQUIPMENT

Protective Clothing

Wear long-sleeved shirt and long pants, gloves and boots when handling this product. Until braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body protective clothing impervious to sulfur dioxide, and gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

Respiratory Protection

If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube, Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator. No one should enter a high SO₂ concentration area using a short-term full-face respirator because these only have a limited capacity for protection. It is not possible for someone working in a high SO₂ concentration area to know when the limit of a full-face respirator has been reached.

POSTING OF FUMIGATION SITES

Before fumigation, the applicator must post markings at all entrances to the fumigated areas with signs bearing the following statements in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

RE-ENTRY AFTER FUMIGATION

After fumigation, treated areas must be undisturbed until the level of sulfur dioxide is at or below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

STORAGE AND DISPOSAL, SPILL AND LEAK PROCEDURES

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use.

Pesticide Disposal – Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal - When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Do not use cylinders for any other purpose. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air

supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote airflow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by Botrytis cinerea. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow on a 7-10 day interval. For fruit being shipped to market soon

after harvest, SO₂ fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO₂ through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO₂ saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficiency. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO₂ from the recirculating air to equal the rate of removal by direct venting.

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:

Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the bottle to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

HIGH FREQUENCY – LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize effects of non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels - Using Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production: Fumigate the cork to reduce effects of non-public health fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

Snowden/SO₂label/ 9-07

Subj: Re: Fwd: Questions re: Snowden Ent. DCI for SO2
Date: 2/4/2008 1:43:30 PM Pacific Standard Time
From: Kish.Tony@epamail.epa.gov
To: Aalterri@aol.com

Terri:

1. In retrospect, your Fruit Doctor label does not need the section on page 4 subtitled "Posting Signs" for trucks, vans and railcars with associated text. This needs to be deleted because I can find no other fumigant with a similar section. ✓
2. In lieu of #1 above, on page 3 the subtitle "Posting of Fumigated Warehouse Area" needs to stay and be changed to cover all fumigation sites as in "Posting of Fumigation Sites". This section needs to list the standard 5 requirements. Requirement #2 about poison is not needed. ✓
3. Thus, only one section for fumigation instructions for all sites (warehouse and non-warehouse) is needed (page 3). A separate vehicle placard section is not needed for EPA and must be deleted (page 4). ✓
4. The above advice can be submitted by amendment and is separate from a DCI label review. The DCI related label changes are part of your 8 month response and require separate submission of a revised label and review, so there could be more changes required. Most registrants send in DCI related label changes separately from normal amendments and it takes some time for SRRD and RD to approve them. We are not close to that time yet. So regarding the 16,000 cylinders, if you want to submit a label amendment with the changes I discussed above, you are free to do so. Unless the RED requires it, the DCI changes do not have to be put on any cylinder until after we review your 8 month response (ie., product chemistry, acutes, label with RED related label changes).

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443

Aalterri@aol.com

02/03/2008
03:12 AM

To
Tony Kish/DC/USEPA/US@EPA
cc

Subject
Fwd: Questions re: Snowden Ent.
DCI for SO2



Bob Tomerlin/DC/USEPA/US

05/20/2008 05:16 PM

To kish.tony@epa.gov

cc

bcc

Subject Reg. No. 11195-1: Draft letter with comments & supporting documents

Hi Tony -

I think the label for The Fruit Doctor is OK. I'm drafted a letter to "Accept with Comments." That letter, the label, and my project log are attached. "...Cylinder Label 3-2008.pdf" is the cylinder label, "...Doctor label 3-2008.pdf" is the user label, and "...Applic Manualpdf" is the Application Manual.

Please pay particular attention to what I've instructed them regarding our file label and their printed label. Basically, everything is OK. **ALSO NOTE** that I've said in the letter that you'll enclose a copy of your 2/4/08 email. Feel free to remove that if you want, but I think it will make the record clearer because they originally didn't submit an entire label amendment, just the Application Manual.

Phew!!! - Bob T.

J. R. Tomerlin, PhD
USEPA - Registration Division
EPA #: 703-305-0598 (will forward to my alternate work place)
703-308-1825 (fax)



tommerlin.bob@epa.gov 11195-1-label-review-action-log.doc 11195-1-ltr-accept-comments-may20-08.doc



Snowden - FRUIT DOCTOR Applic Manual EPA amendment 2-27-08.pdf Snowden Ent. Cylinder Label 3-2008.pdf



Snowden Ent. The Fruit Doctor label 3-2008.pdf

11195-1 LABEL REVIEW NOTES – Spring 2008
The Fruit Doctor – Sulphur Dioxide

Registrant: Snowden Enterprises

Reg Contact: Terri Siemer-Aal, 559-637-4576, (fax) 559-637-4578, Aalterri@aol.com

Date I received package: 3/21/08

PM: Tony Kish, Team 22

Last approved label: 9/24/07

PIN PUNCH: 3/10/08

Submission Due Date: 6/8/08

Summary of Action: Snowden is requesting an amendment to The Fruit Doctor application manual. The amendment makes changes to the application manual according to points 1 – 3 of Tony Kish's 2/4/08 email to Terri Aal; note that the Kish email refers to the Fruit Doctor label, **not** the application manual. Furthermore, the Form 8570-1 says that they are requesting a label amendment per the email request from Tony Kish.

INVENTORY OF DOCUMENTS IN PROJECT PACKAGE	
DESCRIPTION	DATE
NOTICE OF PESTICIDE REREGISTRATION (8570-6):	Not pertinent
REREGISTRATION ELIGIBILITY DECISION:	Not on schedule
LABEL:	Not in packet from FB. Do have most recently approved (9/24/07) label from PPLS
CSF (8570-4):	Basic: Not in packet from FB. Alternate: Not in packet from FB.
FORMULATOR'S EXEMPTION (8570-27):	Not in packet from FB.
DATA MATRIX (8570-35):	Not in packet from FB.
CERTIFICATION WITH RESPECT TO CITATION OF DATA (8570-34):	Not in packet from FB.
PRB LABEL REVIEW:	Not in packet from FB.
ACUTE TOXICITY REVIEW:	Not in packet from FB.
PRODUCT CHEMISTRY REVIEW:	Not in packet from FB.
APPLICATION FOR PESTICIDE (8570-1)	2/25/08
OTHER:	Nothing in packet from FB

YELLOW – Things to check with the registrant
LIGHT BLUE – Things to check with the PM
GREEN – Resolution of the issue, or what I plan to do about it

ITEMS TO CHECK WITH PM

Clarify whether or not there should be a label under consideration. Tony's email says, e.g.: "In retrospect, your Fruit Doctor label does not
 So, is the amendment packet supposed to include a label, or just a revised application manual. I think I figured out what's going on. The last approved label (9/24/07) is 12 pages long, with the label being pages 1 and 2; pages 3 – 12 are the application manual. Snowden is only making changes to the application manual part of the document; which can also stand on it's own. I'll check further with TK if this doesn't seem to work out according to regs. **TK prefers that the entire label set – cylinder label, user label, and application manual – be provided whenever they modify something.**

ITEMS TO CHECK WITH REGISTRANT

None

CORRESPONDENCE SUMMARY

	OPPIN info sheet
2/27/08	Cover letter from Terri Siemer-Aal (TA)
2/4/08	Kish email to TA describing the changes need for the Fruit Doctor label
	The Fruit Doctor Application Manual, pin-punched 3/10/08 (4 copies)

COMMUNICATION LOG

3/24/08 – LM for TK requesting clarification about label vs. application manual. **Figured out what's going on; see under "Check with PM" box.**

3/24/08 – TK called and said to have TA send the label because we'll need those pages when we stamp the new approved label.

3/25/08 – Email to TA asking for label that go with the Application Manual in the submission materials.

3/27/08 – TA sent two labels, but, both appear to be one-page documents that are attached to the product cylinder. Neither of the files appear to be the product label that accompanies the Application Manual. I sent TA another email requesting the product manual that accompanies the

COMMUNICATION LOG

Application Manual that is given to the purchaser.

5/13/08 – Telephone conversation with TK. He said the addition of the skull and crossbones to the directions for the signs posted at fumigated areas is OK.

5/13/08 – Sent label review to TA with question about “Accept with Comments” or send clean label.

5/14/08 – TA responded: Sent “Accept with Comments” letter now.

5/14/08 – Email request to TA for electronic version of Application Manual. Followed with email asking which e-version of the cylinder label was current and was part of the label set. TA said they wanted to go with “3-2008” for space considerations.

5/14/08 – As requested, TA sent an E-version of the App Man.

5/20/08 – Sent draft letter to “Accept with Comments” and supporting documents to TK.

CSF REVIEW

Not pertinent

PRODUCT CHEMISTRY NOTES

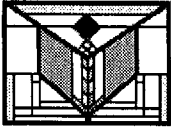
Not pertinent

ACUTE TOXICITY NOTES

Category I, per 5/13/08 telephone conversation w/TK

LABEL REVIEW COMMENTS

Change "... Snowden Enterprises, Inc., system." to "... Snowden Enterprises, Inc." at the bottom of page 6, the bottom of page 7, and the top of page 8.



Tony Kish/DC/USEPA/US
02/04/2008 04:42 PM

To Aalterri@aol.com
cc
bcc

Subject Re: Fwd: Questions re: Snowden Ent. DCI for SO2

Terri:

1. In retrospect, your Fruit Doctor label does not need the section on page 4 subtitled "Posting Signs" for trucks, vans and railcars with associated text. This needs to be deleted because I can find no other fumigant with a similar section.

2. In lieu of #1 above, on page 3 the subtitle "Posting of Fumigated Warehouse Area" needs to stay and be changed to cover all fumigation sites as in "Posting of Fumigation Sites". This section needs to list the standard 5 requirements. Requirement #2 about poison is not needed.

3. Thus, only one section for fumigation instructions for all sites (warehouse and non-warehouse) is needed (page 3). A separate vehicle placard section is not needed for EPA and must be deleted (page 4).

4. The above advice can be submitted by amendment and is separate from a DCI label review. The DCI related label changes are part of your 8 month response and require separate submission of a revised label and review, so there could be more changes required. Most registrants send in DCI related label changes separately from normal amendments and it takes some time for SRRD and RD to approve them. We are not close to that time yet. So regarding the 16,000 cylinders, if you want to submit a label amendment with the changes I discussed above, you are free to do so. Unless the RED requires it, the DCI changes do not have to be put on any cylinder until after we review your 8 month response (ie., product chemistry, acutes, label with RED related label changes).

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
Aalterri@aol.com



Aalterri@aol.com
02/03/2008 03:12 AM

To Tony Kish/DC/USEPA/US@EPA
cc

Subject Fwd: Questions re: Snowden Ent. DCI for SO2

Dear Mr. Kish:

Snowden Enterprises has been working on the DCI for sulfur dioxide and has a few questions regarding their front panel cylinder label printing. You'll see from the e-mail correspondence with Karen Jones that it was recommended we direct our questions to you. After receiving EPA's acceptance for The Fruit Doctor and the State of California's acceptance of the label we have been preparing to relabel 16,000 cylinders. We then received the DCI for sulfur dioxide and just this week received the "Label Changes Summary Table - Table 9: Summary of Labeling Changes for Sulfur Dioxide", which requires some label changes be made. One change in particular relates to the cylinder label. It requires the Restricted Use Pesticide statement be revised to read "Due to inhalation toxicity." Our question is, can we change our current label wording, i.e. "Due to corrosive effects during inhalation and to eyes and skin." to the new wording prior to

our upcoming cylinder label (front panel) printing? And can we be assured that since our label was just recently reviewed by the Agency that no other changes will be required for the front panel. Our concern is that we will reprint 16,000 labels and have them put on the cylinders and then have another change required.

We would appreciate your guidance on how to proceed.

Thank you,

Sincerely,
Terri Siemer-Aal
Regulatory Consultant
for Snowden Enterprises, Inc.

Who's never won? Biggest Grammy Award surprises of all time on AOL Music.

----- Message from Jones.Karen@epamail.epa.gov on Thu, 31 Jan 2008 07:59:14 -0500 -----

To: Aalterri@aol.com

Subject: Re: Questions re: Snowden Ent. DCI for SO2

Ms. Aal

Yes, it is acceptable for you to request an acute toxicity waiver based on the Category I classification - signal word " Danger/Poison skull crossbones."

Regarding the relabeling issue - I think you should continue with the relabeling process so that you are in compliance with the Agency requirements of Sept. 2007. Normally, the DCI review process takes a while to complete. Once all of the product specific data requirements have been satisfied, a preliminary label assessment is conducted by the Product Reregistration Branch's label team. When the label team has completed their preliminary assessment, the product label and technical reviews are forwarded to the Product Manager for final label review and reregistration. Therefore, I would continue with the current relabeling process. If you think that you should hold off until the DCI process is completed, you will need to check with the Tony Kish who issued the Sept. 2007 label requirements. But I'm guessing that he would want you to be in compliance with the recommended label requirements.

I hope this helps.

Karen Jones
Chemical Review Manager
Product Reregistration Branch
Special Review & Reregistration Division (7508P)
EPA/OPPTS/OPP
(703) 308-8047

Aalterri@aol.com

01/30/2008 03:56
PM

Karen Jones/DC/USEPA/US@EPA

kirk@snowdenenterprises.com

To

cc

Subject
Questions re: Snowden Ent. DCI
for SO2

Dear Ms. Jones:

I apologize for the phone tag - since we are in the process of moving our offices, it has been difficult for me to be at my desk at all times, so I think sending my questions by e-mail may work better.

My questions pertain to Snowden Ent. and the DCI (DCI No. PDCI-077601-26685, Sulfur Dioxide, Case No. 4056) response we are preparing.

From what I understood from the message left by Mark Perry we can go ahead and request a waiver from the requirement to perform acute toxicity testing for this product since it is already classified as EPA's worst case scenario Signal word "Danger/Poison Skull and Crossbones". Please confirm that submitting a waiver from the requirements to perform acute toxicity testing is acceptable.

My other questions concern Snowden's relabeling of 16,000 gas cylinders. EPA recently reviewed Snowden's container and supplemental labels. These labels were stamped accepted by EPA (Tony Kish) on Sept. 24, 2007. Following acceptance we had further correspondence regarding the label and submitted final label proofs on Nov. 12, 2007. Snowden has been preparing to facilitate the relabeling of all of their cylinders (16,000) and scheduling the time consuming process. My question and huge concern is that Snowden could relabel their cylinders per EPA's requirements of Sept. 2007 and then again be required after review of the DCI to relabel 16,000 cylinders. Is there any way to either hold off on their relabeling until the DCI has been fully reviewed or look at Snowden's current label, accepted by EPA in Sept. 2007 and tell us that no other front panel changes would be required? The cylinders only have front paneling information on them (I have attached a pdf file so you can see the cylinder label in question that EPA recently accepted.). After looking this label over, please tell me how we should proceed; i.e. continue with relabeling process or hold off until DCI review is complete? If it is the later option, I want to be sure Snowden would not be considered noncompliant with their labeling in the interim.

Thank you for your assistance with this. If you feel we need to discuss this by phone, I'm sure we could set up a time to connect by phone.

Sincerely,
Terri Siemer-Aal
Agent for Snowden Enterprises, Inc.

Start the year off right. Easy ways to stay in shape in the new year.
(See attached file: Snowden Ent. Cylinder Label 9-2007.pdf)



Snowden Ent. Cylinder Label 9-2007.pdf

From: Bob Tomerlin/DC/USEPA/US
To: aalterri@aol.com
cc: kish.tony@epa.gov

Date: Thursday, March 27, 2008 10:11AM
Subject: Re: Reg. No. 11195-1: Need a label

Ms. Siemer-Aal

As you requested, this email confirms receipt of the labels for the subject product.

However, your email says that one file is the label that is pasted onto the product container and the other file should be the product label that is placed directly in front of the Application Manual and given to the purchaser.

However, both file names have the format:

"Snowden Ent. **Cylinder Label** X-200Y.pdf" - Emphasis mine, X and Y are 9 & 7 on one label and 3 & 8 on the other.

Both labels are exactly the same, except for minor formatting differences. Therefore, it appears that I do not yet have the label that is handed to the purchaser with the Application Manual.

If I'm correct, please send me a copy of the product label that accompanies the Application Manual at the time of purchase.

Regards - Bob T.

J. R. Tomerlin, PhD
USEPA - Registration Division
EPA #: 703-305-0598 (will forward to my alternate work place)
703-308-1825 (fax)
tomerlin.bob@epa.gov

-----aalterri@aol.com wrote: -----

To: Bob Tomerlin/DC/USEPA/US@EPA
From: aalterri@aol.com
Date: 03/26/2008 10:39PM
Subject: Re: Reg. No. 11195-1: Need a label

Dear Dr. Tomerlin:

As requested, attached are two Fruit Doctor labels for Snowden Ent. in pdf file format. Attached are files for the container (cylinder) label, and the product label that is placed directly in front of the Application Manual when handed out to the customer.

When you receive this information, will you please confirm receipt - this will complete my file records.

Thank you for your assistance with this review process. If you need any additional information, please contact me.

Thank you,
Terri

Terri Siemer-Aal
Regulatory Consultant
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

-----Original Message-----

From: Tomerlin.Bob@epamail.epa.gov
To: aalterri@aol.com
Cc: kish.tony@epa.gov
Sent: Tue, 25 Mar 2008 12:11 pm
Subject: Re: Reg. No. 11195-1: Need a label

Ms. Siemer-Aal -

Thanks for the email. Please make sure you send the label as an email attachment. Sending it through the front end will delay it getting to me as I work from home for medical reasons.

Regards - Bob T.

J. R. Tomerlin, PhD
USEPA - Registration Division
EPA #: 703-305-0598 (will forward to my alternate work place)
703-308-1825 (fax)
tomerlin.bob@epa.gov

----- aalterri@aol.com wrote: -----

To: Bob Tomerlin/DC/USEPA/US@EPA
From: aalterri@aol.com
Date: 03/25/2008 02:52PM
Subject: Re: Reg. No. 11195-1: Need a label

Dr. Tomerlin:

Thank you for your e-mail re: Snowden Enterprises. We will have labels to you by the end of this week for The Fruit Doctor.

Thanks,
Terri

-----Original Message-----

From: Tomerlin.Bob@epamail.epa.gov
To: Aalterri@aol.com
Cc: kish.tony@epa.gov

Sent: Tue, 25 Mar 2008 7:05 am
Subject: Reg. No. 11195-1: Need a label

Ms. Siemer-Aal -

I'm working on your amendment for The Fruit Doctor submitted 2/27/08. The package I have includes the application manual only. However, if the submission is acceptable, when the time comes, we will need to print off and stamp an entire label, which in the case of The Fruit Doctor includes the two pages of label *per se* and the Application Manual, which essentially is a separate booklet containing the directions for use.

Therefore, please send me a copy of the label for Reg. No. 11195-1, the companion piece to the Application Manual that I already have. In the interest of time, please send me the label via email as an MS-Word or *.pdf attachment; please copy Tony Kish on the email.

Regards - Bob T.

J. R. Tomerlin, PhD
USEPA - Registration Division
EPA #: 703-305-0598 (will forward to my alternate work place)
703-308-1825 (fax)
tommerlin.bob@epa.gov

=

Planning your summer road trip? Check out [AOL Travel Guides](#) .

=

Planning your summer road trip? Check out [AOL Travel Guides](#) .

[attachment "Snowden Ent. The Fruit Doctor label 3-2008.pdf" removed by Bob Tomerlin/DC/USEPA/US]

[attachment "Snowden Ent. Cylinder Label 3-2008.pdf" removed by Bob Tomerlin/DC/USEPA/US]

Explore Registrations					
Reg Number:	11195-1	Reg. Type:	Product Registration - Section 3	Status:	Conditionally Registered (17-Jul-19)
Name:	THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE			<View Registration Details>	
(No New Receipts)					
S.	Submission Type	OPP Rec'd Date	Resubmission	Description	
<div style="display: flex;"> <div style="flex: 1;"> <p>...Decisions...</p> <ul style="list-style-type: none"> D: Pending; 391277; 11195-1;300;LABEL REVISI S: 826426 3/10/2008; Amendment; 11195 D: Pending; 386248; 11195-1;676;Product Rereg D: Closed; 347801; 11195-1;300;LABEL REVISI D: Closed; 347728; 11195-1;W01;ULTRA SMALL D: Closed; 347005; 11195-1;V12;FEE REDUCTI D: Closed; 290220; 11195-1;R17;NEW USE;EAC D: Closed; 290219; 11195-1;350;GENERAL CO D: Pending; 290218; 11195-1;320;DATA REQUIR D: Closed; 290217; 11195-1;160;NEW REGISTR Data Requirements </div> <div style="flex: 2;"> <p>S: 826426 Reg #: 11195-1</p> <p>Submission Type: Amendment</p> <p>Resubmission?: <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>Decision #: 391277; 300;LABEL REVISION;NO DATA REQUIRED;</p> <p>Submitter Company: SNOWDEN ENTERPRISES, INC</p> <p>Application Date: 27-Feb-2008</p> <p>OPP Received Date: 10-Mar-2008 Date Sent to Risk manager: 21-Mar-2008</p> <p>Studies Included?: <input type="radio"/> Yes <input checked="" type="radio"/> No Fast Track?: <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>Form A Signed?: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> None Date: </p> <p>Form B Signed?: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> None Date: </p> <p>Reviewer: <u>Tomerlin, James</u></p> <p>Received DT: 24-Mar-2008 Editable Due DT: </p> <p>Submission Due DT: 08-Jun-2008 Response: D, 10-Mar-2008</p> <p>Priority Weight: Priority Points: </p> <p>Comments: Label amendment/ Posting of fumigation sites.</p> </div> </div>					

LD 3/21/08

Terri Siemer-Aal Regulatory Consulting

1036 "G" Street
Reedley, CA 93654
Telephone (559) 637-4576
FAX (559) 637-4578
Aalterri@aol.com

February 27, 2008

Mr. Tony Kish
Product Manager (22)
Fungicide Branch
Registration Division
Office of Pesticide Programs (7504P)
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Certified Mail:
Document Processing Desk
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Subject: Snowden Enterprises, Inc.
The Fruit Doctor, EPA Reg. No. 11195-1
Label amendment per US EPA e-mail request re: posting
of fumigation sites

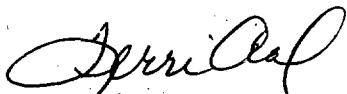
Dear Mr. Kish:

On behalf of Snowden Enterprises, Inc. enclosed is an application to amend
The Fruit Doctor label Application Manual.

Per your e-mail dated 2-4-2008 The Fruit Doctor label Application Manual
has been revised according to points 1-3 of the e-mail (copy of e-mail is
enclosed). An application for amendment and five copies of the revised
draft Application Manual are enclosed.

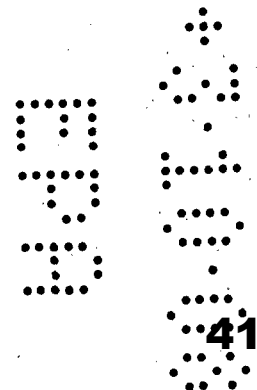
Please contact me if you have any questions or need additional information.

Sincerely,



Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

095epaltr/snowden





United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☒ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number
Snowden Enterprises, Inc./11195-1

2. EPA Product Manager
Mr. Tony Kish

3. Proposed Classification
☐ None ☐ Restricted

4. Company/Product (Name)
Snowden Enterprises, Inc./The Fruit Doctor

PM#
22

5. Name and Address of Applicant (Include ZIP Code)

Snowden Enterprises, Inc.
c/o Terri Siemer-Aal Regulatory Consulting
1036 G Street, Reedley, CA 93654

☒ Check if this is a new address

6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:

☒ EPA Reg. No. _____

Product Name _____

Section - II

☒ Amendment - Explain below.

☐ Resubmission in response to Agency letter dated _____

☐ Notification - Explain below.

☐ Final printed labels in response to
Agency letter dated _____

☐ "Me Too" Application.

☐ Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Label amendment per e-mail request from Mr. Tony Kish. Amendment is to delete "posting signs" portion of label (pg. 4) and revise "posting of fumigation sites" (pg. 3).

Contact Information regarding amendment: Terri Aal, aalterri@aol.com, 559-637-4576

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging

☐ Yes
☒ No

Unit Packaging

☐ Yes
☒ No

Water Soluble Packaging

☐ Yes
☒ No

2. Type of Container

☒ Metal
☐ Plastic
☐ Glass
☐ Paper
☐ Other (Specify) _____

* Certification must
be submitted

If "Yes"
Unit Packaging wgt.

No. per
container

If "Yes"
Package wgt.

No. per
container

3. Location of Net Contents Information

☐ Label ☒ Container

4. Size(s) Retail Container

5. Location of Label Directions

☐ On Label
☒ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product

☒ Lithograph
☐ Paper glued
☐ Stenciled

☐ Other _____

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name
Terri Siemer-Aal

Title
Regulatory Consultant

Telephone No. (Include Area Code)
(559) 637-4576

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

Terri Aal

3. Title

Regulatory Consultant

4. Typed Name

Terri Siemer-Aal

5. Date

2-25-2008

6. Date Application
Received

:(Stamped)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT: Sulfur Dioxide..... 100%

KEEP OUT OF REACH OF CHILDREN

DANGER



PELIGRO

POISON

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID

If inhaled	- Move person to fresh air. - If person is not breathing, call 911 or an ambulance, then give artificial respiration, Preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. - Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin. - DO NOT apply any chemicals or ointments/lotions to damaged skin. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	- DO NOT wear contact lenses when working with or around sulfur dioxide. - Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. - DO NOT apply any chemical or ointment to the eyes. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If Swallowed	- (LIQUID SULFUR DIOXIDE) - Call a poison control center or doctor immediately for treatment advice. - Have person sip a glass of water if able to swallow. - Do not induce vomiting. - Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT: Sulfur Dioxide..... 100%

KEEP OUT OF REACH OF CHILDREN



DANGER

PELIGRO

POISON

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID

If inhaled	<ul style="list-style-type: none"> - Move person to fresh air. - If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. - Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> - Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin. - DO NOT apply any chemicals or ointments/lotions to damaged skin. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> - DO NOT wear contact lenses when working with or around sulfur dioxide. - Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. - DO NOT apply any chemical or ointment to the eyes. - Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If Swallowed	<ul style="list-style-type: none"> - (LIQUID SULFUR DIOXIDE) - Call a poison control center or doctor immediately for treatment advice. - Have person sip a glass of water if able to swallow. - Do not induce vomiting. - Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID – LIQUID CAUSES BURNS OF SKIN AND EYES.

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

"Snowden Ent. The Fruit Doctor label 3-2008.pdf"

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER

PRESSURIZED LIQUID GAS
HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF SKIN AND EYES.

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water on any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR
COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT: Sulfur Dioxide..... 100%

KEEP OUT OF REACH OF CHILDREN

DANGER



PELIGRO

POISON

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide.- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA REG. NO. 11195-1

EPA EST. NO. 11195-CA-1 or 2

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

SEE APPLICATION MANUAL DESCRIBING USE OF FRUIT DOCTOR SULFUR DIOXIDE - THIS PRODUCT IS ACCOMPANIED BY AN APPROVED APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

CONDITIONS OF SALE

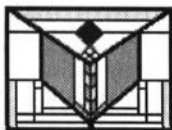
1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning product.

2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, to the extent consistent with applicable law, Snowden's liability is limited to replacement of product or refund of purchase price. In no event shall Snowden be liable for indirect or consequential damages.

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

check
date

45



Tony Kish/DC/USEPA/US
02/04/2008 04:42 PM

To Aalterri@aol.com

cc

bcc

Subject Re: Fwd: Questions re: Snowden Ent. DCI for SO2

Terri:

1. In retrospect, your Fruit Doctor label does not need the section on page 4 subtitled "Posting Signs" for trucks, vans and railcars with associated text. This needs to be deleted because I can find no other fumigant with a similar section.

2. In lieu of #1 above, on page 3 the subtitle "Posting of Fumigated Warehouse Area" needs to stay and be changed to cover all fumigation sites as in "Posting of Fumigation Sites". This section needs to list the standard 5 requirements. Requirement #2 about poison is not needed.

3. Thus, only one section for fumigation instructions for all sites (warehouse and non-warehouse) is needed (page 3). A separate vehicle placard section is not needed for EPA and must be deleted (page 4).

4. The above advice can be submitted by amendment and is separate from a DCI label review. The DCI related label changes are part of your 8 month response and require separate submission of a revised label and review, so there could be more changes required. Most registrants send in DCI related label changes separately from normal amendments and it takes some time for SRRD and RD to approve them. We are not close to that time yet. So regarding the 16,000 cylinders, if you want to submit a label amendment with the changes I discussed above, you are free to do so. Unless the RED requires it, the DCI changes do not have to be put on any cylinder until after we review your 8 month response (ie., product chemistry, acutes, label with RED related label changes).

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
Aalterri@aol.com



Aalterri@aol.com
02/03/2008 03:12 AM

To Tony Kish/DC/USEPA/US@EPA

cc

Subject Fwd: Questions re: Snowden Ent. DCI for SO2

Dear Mr. Kish:

Snowden Enterprises has been working on the DCI for sulfur dioxide and has a few questions regarding their front panel cylinder label printing. You'll see from the e-mail correspondence with Karen Jones that it was recommended we direct our questions to you. After receiving EPA's acceptance for The Fruit Doctor and the State of California's acceptance of the label we have been preparing to relabel 16,000 cylinders. We then received the DCI for sulfur dioxide and just this week received the "Label Changes Summary Table - Table 9: Summary of Labeling Changes for Sulfur Dioxide", which requires some label changes be made. One change in particular relates to the cylinder label. It requires the Restricted Use Pesticide statement be revised to read "Due to inhalation toxicity." Our question is, can we change our current label wording, i.e. "Due to corrosive effects during inhalation and to eyes and skin." to the new wording prior to

MATERIAL TO BE ADDED TO JACKET

REG # 11195-1

Description: New stamped-accepted label

check all that apply	
<input checked="checked" type="checkbox"/>	new stamped accepted label
<input type="checkbox"/>	new CSF
<input type="checkbox"/>	notification

Send to CSC

Instructions:

Attach this sheet to the top of **ALL** material sent to the file room (both loose paper and new material in jackets). This sheet will be imaged; a clear description will aid in finding material in the e-jacket. Remove staples from all material. If returning loose paper then hold together with a binder or paper clip. CSFs should be placed in the CSF folder (if returning jacket) or covered with a red CBI sheet (if returning loose paper). Material to be returned to file room should be place in the appropriate bin.

Reviewer's

Name: John Bazuin

Date: 10/3/07

Phone: 305-7381

Division: RD/FB



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

SEP 24 2007

Terri Siemer-Aal
Terri Siemer-Aal Regulatory Consulting
Agent for: Snowden Enterprises, Inc.
1612 11th Street
Reedley, California 93654

Subject: The Fruit Doctor
EPA Registration Number 11195-1
The amended Application Manual component of the label submitted by e-mail on September 21, 2007, superseding an Application Manual submitted on September 13, 2007, and the Main Label and Cylinder Label components of the label submitted on September 13, 2007; these components collectively superseding full labeling submitted on June 2, 1995 and resubmitted on September 8, 2004

Dear Mrs. Siemer-Aal,

The amended master label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable, provided that you comply with the following conditions.

1. Make the following changes to the label.

a. On the Main Label, add a graphic that consists of a skull and crossbones over the word "POISON" in a box, under or beside the Signal Word "DANGER - PELIGRO".

b. Move the Spanish-language statement "PRECAUCION AL USUARIOS: si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente." up the label to immediately follow the Signal Word and skull and crossbones graphic.

c. On the Cylinder label, add a graphic that consists of a skull and crossbones over the word "POISON" in a box under or beside the Signal Word "DANGER - PELIGRO".

d. On the first page of the Application Manual, add a skull and crossbones over the word "POISON" in a box under or beside the Signal Word "DANGER - PELIGRO".

e. In the "Protective Clothing" subsection of the "PERSONAL PROTECTIVE EQUIPMENT" on page 3 of the Application Manual, change the first sentence from "Wear long-sleeved shirt and long pants, gloves and boots when handling this product." to "Wear long-sleeved shirt and long pants, gloves and boots when handling this product." Change the beginning of the following sentence from "If braided hoses are..." to "Until braided hoses are...".

f. In the placard box on page 4 of the Application Manual, the box on the placard which reads "Insert skull and crossbones art" must contain a skull and crossbones over the word "POISON" on the final printed label.

2. Submit one copy of your final printed labeling before you release the product for shipment.

If you have any questions about this letter, please contact John Bazuin at (703)305-7381.

Sincerely yours,



Tony Kish, Product Manager (22)
Fungicide Branch
Registration Division (7505P)

Attachments: Master label stamped "ACCEPTED with COMMENTS"
ARIA risk assessment

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR**COMPRESSED SULFUR DIOXIDE**

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL.
READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL)
BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO
OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

SEP 24 2007

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

11195-1

ACTIVE INGREDIENT

Sulfur Dioxide.....

TOTAL.....

BY WEIGHT

100.0%

100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID**If inhaled**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

**If on skin
or clothing**

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If in eyes

- DO NOT wear contact lenses when working with or around sulfur dioxide
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

**If
swallowed**

- (LIQUID SULFUR DIOXIDE)
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting.
- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS****PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents:

(See Attached Tag for Pounds Sulfur Dioxide Net Contents)

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

DANGER

**PRESSURIZED LIQUID GAS
HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF
SKIN AND EYES.**

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ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water or any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

**THE FRUIT DOCTOR
COMPRESSED SULFUR DIOXIDE**

ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide	100.0%
TOTAL	100.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO**
HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.
See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide.- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**SEE APPLICATION
MANUAL DESCRIBING USE
OF FRUIT DOCTOR SULFUR
DIOXIDE - THIS PRODUCT IS
ACCOMPANIED BY AN
APPROVED APPLICATION
MANUAL. READ AND
UNDERSTAND THE ENTIRE
LABELING (LABEL AND
APPLICATION MANUAL)
BEFORE USING THIS
PRODUCT. CONTACT
SNOWDEN ENTERPRISES,
INC. TO OBTAIN A
REPLACEMENT COPY OF
THE APPLICATION
MANUAL.**

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.

2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, to the extent consistent with applicable law, Snowden's liability is limited to replacement of product or refund of purchase price. In no event shall Snowden be liable for indirect or consequential damages.

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

EPA REG. NO. 11195-1
PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

EPA EST. NO. 11195-CA-1 or 2

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR

APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS**

DANGER – PELIGRO

**PRESSURIZED LIQUID GAS
KEEP OUT OF REACH OF CHILDREN**

**ACCEPTED
with COMMENTS
In EPA Letter Dated
SEP 24 2007**

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

11195-1

Hazardous vapor and liquid – Liquid causes burns of skin and eyes.

Fatal if inhaled in high concentrations. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear coveralls over long sleeved shirt and long pants, chemical resistant boots and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. DO NOT apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. DO NOT apply any chemical or ointment to the eyes. DO NOT wear contact lenses when working with or around sulfur dioxide. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements

for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period. It is recommended that any time SO₂ gassing is occurring, that the area be monitored for SO₂ levels at all times.

PERSONAL PROTECTIVE EQUIPMENT

Protective Clothing

Wear long-sleeved shirt and long pants, gloves and boots when handling this product. If braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body protective clothing impervious to sulfur dioxide, and gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

Respiratory Protection

If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube, Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator. No one should enter a high SO₂ concentration area using a short-term full-face respirator because these only have a limited capacity for protection. It is not possible for someone working in a high SO₂ concentration area to know when the limit of a full-face respirator has been reached.

POSTING OF FUMIGATED WAREHOUSE AREA

Before fumigation, the applicator must post markings at all entrances to the fumigated areas with signs bearing the following statements in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

POSTING SIGNS (FUMIGANT MARKING) FOR TRUCKS, VANS, AND RAILCARS

Proper fumigant markings must be prominently displayed on all trucks, vans or railcars that have been fumigated with SO₂ prior to transport. The fumigant markings must follow all current required Department of Transportation regulations. Fumigant marking must be displayed so that it can be seen by any person attempting to access the interior of the transport vehicle or freight container. The fumigant marking must be formatted as shown below:

The fumigant marking must consist of red letters on white background that is at least 30 cm (11.8 inches) wide and at least 25 cm (9.8 inches) high. The fumigant marking must read as follows:

<p>DANGER</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"><small>Insert skull and crossbones art</small></div> <p>THIS UNIT IS UNDER FUMIGATION WITH SULFUR DIOXIDE, LIQUEFIED APPLIED ON</p> <p>Date _____ Time _____</p> <p>DO NOT ENTER</p>

The fumigant marking must stay on the truck, van, or railcar until the fumigated container is unloaded and the transport vehicle or freight container has undergone sufficient aeration to assure that it does not pose an unreasonable risk to health and safety (below the threshold concentration of 2.0 ppm).

The applicator must show on the manifest accompanying the load that the trailer has been fumigated with SO₂. The statement on the manifest must show the following:

1. Trailer fumigated with SO₂.
2. The date and time of fumigation.
3. Name of fumigant used.

RE-ENTRY AFTER FUMIGATION

After fumigation, treated areas must be undisturbed until the level of sulfur dioxide is at or below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

STORAGE AND DISPOSAL, SPILL AND LEAK PROCEDURES

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use.

Pesticide Disposal – Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal - When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Do not use cylinders for any other purpose. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote airflow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by Botrytis cinerea. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow on a 7-10 day interval. For fruit being shipped to market soon after harvest, SO_2 fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO_2 through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO_2 saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficiency. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO_2 from the recirculating air to equal the rate of removal by direct venting.

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:
Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the bottle to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY – LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc., system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO_2 must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize effects of non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels - Using Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production: Fumigate the cork to reduce effects of non-public health fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork

loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

Snowden/SO₂label/ 9-07



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES
OFFICE OF PESTICIDE PROGRAMS
REGISTRATION DIVISION (7505P)

Lois Rossi, Director
(703) 305-5447

September 27, 2007

MEMORANDUM

SUBJECT: Weekly Activities Report

FROM: Lois Rossi, Director /s/
Registration Division

TO: Debbie Edwards, Director
Office of Pesticide Programs

The following is a brief summary highlighting the Registration Division's (RD) recent actions, accomplishments and activities:

New Tolerances Established for Pendimethalin. On Wednesday, September 19, 2007, the Federal Register published a regulation establishing permanent tolerances for residues of the herbicide, pendimethalin, in or on *Brassica* head and stem, subgroup 5-A, globe artichoke and grape at 0.1 ppm; and on asparagus at 0.15 ppm. Pendimethalin will be used to control annual grasses and certain broadleaf weeds on these crops. The U.S. Department of Agriculture's Interregional Research Project No. 4 (IR-4) requested the tolerances on behalf of the Agricultural Experiment Stations of Tennessee and California (broccoli); New York, Mississippi, North Dakota, Georgia and Ohio (cabbage); Washington (asparagus); California, Washington, Tennessee and South Carolina (grape); and California (artichokes). The tolerance petition was reviewed under a work-sharing agreement with the California Department of Pesticide Regulation (CDPR), with CDPR conducting the primary residue data review. (Susan Stanton, 703-305-5218)

New Cotton Uses Approved for Pyraclostrobin In the Federal Register of 9/26/07, a final rule was published which establishes new tolerances for the fungicide pyraclostrobin on cotton, gin byproducts at 30 ppm; cotton, undelinted seed at 0.3 ppm, and which increases the existing tolerance for berry group 13 from 1.3 ppm to 4.0 ppm. Pyraclostrobin [carbamic acid, [2-[[[1-(4-chlorophenyl)-1*H*-pyrazol-3-yl]oxy]methyl] phenyl]methoxy-, methyl ester] belongs to the strobilurin class of fungicides (β -methoxyacrylate class of compounds). Strobilurins are synthetic

analogous of a natural antifungal substance which inhibit spore germination, mycelial growth, and sporulation of the fungus on the leaf surface. Thanks to the key staff in HED, EFED, OGC, and RD who helped with this approval. (Tony Kish, RD/FB 703-308-9443; Susan Stanton, RD/RIMUERB, 703-305-5218)

Wine Lovers – New Fumigation Uses Approved for Sulfur Dioxide Based on scientific input from RD/RIMUERB and HED, RDs Fungicide Branch approved new uses for sulfur dioxide for fumigating wooden wine barrels and wine corks used in wine production. It was determined that these two uses are supported by the existing 10 ppm sulfur dioxide tolerance for grapes. The new uses were approved for “The Fruit Doctor” (EPA Reg 11195-1). Barrels are fumigated to minimize the effects of resident non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production. Corks are fumigated in closed bags prior to corking bottles to minimize contamination of the wine in the bottle. The sequential procedures for fumigating barrels involves barrel cleaning, drying barrels, removing the small barrel bung (plug), pressurizing with sulfur dioxide for 2-3 seconds, replacing the bung and holding the fumigated barrels for up to 28 days to assure efficacy. The long-standing “contains sulfites” label warning you see on all wine bottles today is from the FDA approved uses during various wine making stages to reduce microbial contamination which helps extend wine’s shelf life. EPA recently learned that the wine industry has been using sulfur dioxide to fumigate barrels and corks for years in possible violation of FIFRA advertising section 168.22. Now, it is a legal use. (Tony Kish, RD/FB, 703/308-9443; John Bazuin, RD/FB, 703/305-7381; John Redden, RD/MUIERB, 703/305-1969)

ARIA (Alternative Risk Integration and Assessment) Team Completes Human Health Risk Assessment for the Use of Dimethenamid-P in/on Winter Squash, Pumpkin, Radish (Roots and Tops), Rutabaga (Roots and Tops), Turnip (Roots, Tops and Greens) and on Hops, Dried Cones September 27, 2007, the ARIA Team completed its evaluation of a petition submitted by the Interregional Research Project No. 4 (IR-4) for the establishment of permanent tolerances for the herbicide dimethenamid-p in/on winter squash; pumpkin; radish, roots and tops; rutabaga, roots and tops; turnip, roots, tops and greens and hop, dried cones. Dimethenamid-P, which is a form of dimethenamid that is enriched in the biologically active S-isomer (90:10, S:R), is a selective, pre-emergence herbicide registered for the control of annual broadleaf and grass weeds in a variety of field and vegetable crops. Currently, there are no residential or other non-agricultural uses of dimethenamid. Acute and chronic dietary exposure and aggregate risk did not exceed ARIA’s level of concern (>100% PAD). ARIA recommended that the tolerances should be placed in 40 CFR §180.464(a), without restriction, except for the tolerances for pumpkins and winter squash which should be placed in 40 CFR §180.464(c), as the use on these crops is restricted to Oregon and Washington. The dietary risk and overall risk assessments were provided by Breann Hanson, the occupational risk assessment provided by Mark Dow, the drinking water risk assessment provided by Paul Mastradone, and the residue chemistry assessment provided by Debra Rate, all from ARIA. ARIA collaborated with Douglas Dotson and Christina Swartz from the Health Effects Division (HED) and William Cutchin from the Registration Division (RD) on this assessment. (Breann Hanson, 703/305-6891; William Cutchin, 703/305-7990)

Pesticide Products Registered Under the Pesticide Registration Improvement Act (PRIA)

Chemical	Company	EPA	Action	Due Date	Completion
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		Registration	Code*		Date
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The Herbicide Branch granted:

Diuron, Thidiazuron	Arysta Lifescience	66330-364	R31	9-22-07	9-21-07
Dicamba	Axss USA	83520-8	R31	9-26-07	9-25-07

(Kathryn Montague, 305-1243)

R31 – New product, non-fast track.

RD's Notifications and Minor Formulation Amendments Reviews

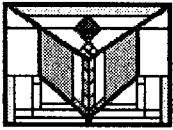
Notification Review Status for FY 2007	Notifications	Minor Formulations
Received this Week	29	22
Reviewed and Processed to Date	1794	473

Submissions completed from **09/21/2007 thru 09/27/2007**

General (20); Primary Brand Name Change (8); Alternate Brand Name Change (21); PR Notices (3); Warranty (6); MFA(2); CSF (7) [Terri Stowe (305-6117); Maria Rodriguez (305-6710); Owen Beeder (308-8899); Joyce Edwards (308-5749); Anthony Gilbert (308-8728) and Sherada Hobgood (308-8898)]

Enforcement Case Reviews (ECRs)

ECR Review Status for FY 2007	ECRs
Received this Week	0
Completed this Week	0
Total ECRs Received	46
Total ECRs completed - Updated as 9/6/07	33



Tony Kish/DC/USEPA/US
09/25/2007 02:38 PM

To Cynthia Giles-Parker/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA

cc

bcc

Subject Fw: Response to your question re: what the wine industry is
currently using to sanitize corks and barrels

FYI -- end of the story, for now!

----- Forwarded by Tony Kish/DC/USEPA/US on 09/25/2007 02:38 PM -----



aalterri@aol.com

09/25/2007 01:56 PM

To Tony Kish/DC/USEPA/US@EPA

cc snowdenent@attglobal.net, John
Bazuin/DC/USEPA/US@EPA

Subject Re: Response to your question re: what the wine industry is
currently using to sanitize corks and barrels

Mr. Kish:

1. It is my understanding that there are products on the market that wineries can use to produce SO₂ gas (sulfur disks and wicks) and there are illegal suppliers of SO₂ gas. Snowden has spent A LOT of money and MANY years trying to develop a legally registered SO₂ product that the industry will be able to use to fumigate their corks and barrels. As stated before, Snowden has never advertised on paper or verbally to sell their product for unregistered uses. The length of time it has taken to gain full registration and add claims to their label has been very costly to them and has allowed other less ethical companies to sell product. We are very glad to have their label issues almost at a close, which will allow wineries legal options for their fumigation needs.

2. I understand regarding the wording "sanitization" or "disinfection". It is not on the label and will not be added to the label or any advertising material.

Thank you for yours and John's assistance throughout this process.

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

-----Original Message-----

From: Kish.Tony@epamail.epa.gov
To: aalterri@aol.com

Cc: Bazuin.John@epamail.epa.gov; Giles-Parker.Cynthia@epamail.epa.gov

Sent: Tue, 25 Sep 2007 6:32 am

Subject: Re: Response to your question re: what the wine industry is currently using to sanitize corks and barrels

Terri --

1. If the industry for years has been advertising and using SO2 for pesticidal purposes on wooden wine barrels and wine corks w/o EPA approval, then why is that not an advertising violation of FIFRA under section 168.22?
2. BTW, the original and latest revised Fruit Doctor label (approved this week) does not have any "sanitization" or "disinfection" claims, and can not make such claims w/o further protocols/data being submitted and found acceptable by EPA.

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443

aalterri@aol.com

09/24/2007 06:08 PM To
Tony Kish/DC/USEPA/US@EPA
cc

Subject
Response to your question re:
what the wine industry is
currently using to sanitize corks
and barrels

Dear Mr. Kish:

In response to your question regarding SO2: What is the industry currently using to sanitize corks and barrels? I placed a call to Snowden Enterprises, who in turned placed a call to a winery representative. In response to your question, the industry is using SO2 gas to fumigate their corks and barrels. Snowden does not make any written or verbal recommendations for this use, but this use has been the most common practice for many years. Sulfur wicks and sulfur disks are also available for use, but these are not commonly used.

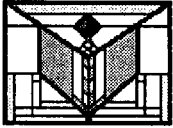
Please let me know if this answers your question sufficiently, or if you need any additional information.

Thank you,

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.
Email and AIM finally together. You've gotta check out free AOL Mail!

Email and AIM finally together. You've gotta check out free AOL Mail!



Tony Kish/DC/USEPA/US
09/25/2007 09:32 AM

To aalterri@aol.com
cc John Bazuin/DC/USEPA/US@EPA, Cynthia
Giles-Parker/DC/USEPA/US@EPA
bcc

Subject Re: Response to your question re: what the wine industry is
currently using to sanitize corks and barrels

Terri --

1. If the industry for years has been advertising and using SO₂ for pesticidal purposes on wooden wine barrels and wine corks w/o EPA approval, then why is that not an advertising violation of FIFRA under section 168.22?

2. BTW, the original and latest revised Fruit Doctor label (approved this week) does not have any "sanitization" or "disinfection" claims, and can not make such claims w/o further protocols/data being submitted and found acceptable by EPA.

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
aalterri@aol.com



aalterri@aol.com
09/24/2007 06:08 PM

To Tony Kish/DC/USEPA/US@EPA
cc
Subject Response to your question re: what the wine industry is
currently using to sanitize corks and barrels

Dear Mr. Kish:

In response to your question regarding SO₂: What is the industry currently using to sanitize corks and barrels? I placed a call to Snowden Enterprises, who in turned placed a call to a winery representative. In response to your question, the industry is using SO₂ gas to fumigate their corks and barrels. Snowden does not make any written or verbal recommendations for this use, but this use has been the most common practice for many years. Sulfur wicks and sulfur disks are also available for use, but these are not commonly used.

Please let me know if this answers your question sufficiently, or if you need any additional information.

Thank you,

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

Email and AIM finally together. You've gotta check out free AOL Mail!

William Hazel/DC/USEPA/US

09/25/2007 12:30 PM

To Judy Facey/DC/USEPA/US@EPA

cc Alan Nielsen/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA, Jack Housenger/DC/USEPA/US@EPA, John Bazuin/DC/USEPA/US@EPA, John Redden/DC/USEPA/US@EPA, OPP HED RRB2, Tony Kish/DC/USEPA/US@EPA

bcc

Subject Re: URGENT BEAN CLOSING NEEDED

I have asked [Mary Proctor](#) and [Esther Williams](#) to close this bean out. Brenda Tarplee told me these are the ONLY two people in HED who can close beans out of OPPIN!!!

Judy Facey/DC/USEPA/US



Judy Facey/DC/USEPA/US

09/25/2007 12:12 PM

To Alan Nielsen/DC/USEPA/US@EPA

cc John Redden/DC/USEPA/US@EPA, Tony Kish/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA, John Bazuin/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA, OPP HED RRB2, Jack Housenger/DC/USEPA/US@EPA

Subject Re: URGENT BEAN CLOSING NEEDED

Hi Al,

I have not idea who is working on this chemical in the branch. Sorry I can't help.

Judy

Judy Facey, PhD
LCDR, U.S Public Health Service
U.S. Environmental Protection Agency
Office of Pesticide Programs
MC 7509 P, 1200 Pennsylvania Ave, NW
Washington, DC 20460

Phone: 703-305-5450

Fax: 703-308-0008

Email: facey.judy@epa.gov

-----Alan Nielsen/DC/USEPA/US wrote: -----

To: John Redden/DC/USEPA/US@EPA
From: Alan Nielsen/DC/USEPA/US
Date: 09/25/2007 09:08AM
cc: Tony Kish/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA, John Bazuin/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA, OPP HED RRB2, Jack Housenger/DC/USEPA/US@EPA
Subject: Re: URGENT BEAN CLOSING NEEDED

John,

I have no knowledge of these actions. I will query the Branch.

AI

-----John Redden/DC/USEPA/US wrote: -----

To: Tony Kish/DC/USEPA/US@EPA
From: John Redden/DC/USEPA/US
Date: 09/25/2007 07:26AM
cc: Alan Nielsen/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA, John Bazuin/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA
Subject: Re: URGENT BEAN CLOSING NEEDED

Tony

This BEAN is for the possible upgrade of the radiolabeled study. Bob Tomerlin is working on it. If I close it I will not have a BEAN, I will have to stop Bob from working on this study.

When we met last, it was decided that we had plenty of time to do this study.

Please advise.

John

Tony Kish/DC/USEPA/US

**Tony
Kish/DC/
USEPA/U
S**

To Alan Nielsen/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA, John
Redden/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA

09/24/2007
05:59 PM

cc John Bazuin/DC/USEPA/US@EPA

Subject URGENT BEAN CLOSING NEEDED

Greetings -- We are done with SO2 fumigation of wooden wine barrels and corks so we need the RRB2 BEAN #220722 and RIMUERB BEAN #339873 shown below closed ASAP. Please close using a date no later than 9/24/07. Can you please advise when this happens.

Many Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443



Explore Registrations

Reg Number: 11195-1 Reg. Type: Product Registration - Section 3 Status: Conditionally Registered (17-Jul-19)
 Name: THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE <View Registration Details>

(No New Receipts)

S:	Submission Type	OPP Rec'd Date	Resubmission	Description

...Decisions...

- + D: Closed; 347801; 11195-1;300;LABEL REVISIO
- + D: Closed; 347728; 11195-1;W01;ULTRA SMALL
- + D: Closed; 347005; 11195-1;V12;FEE REDUCTH
- D: Pending; 290220; 11195-1;R17;NEW USE;EA
 - S: 817066 9/21/2007; Amendment; 11195
 - S: 816866 9/13/2007; Amendment; 11195
 - S: 809035 3/22/2007; Amendment; 11195
 - + DP 339873;RD / RIMJERB; Last Possi.
 - + DP 342914;RD / RIMJERB; Complete I
 - S: 767497 9/9/2004; Amendment; 11195
 - S: 490429 7/13/1995; Amendment; 11195
 - + DP 220722;HED / RRB2; Last Possible
- + D: Closed; 290219; 11195-1;350;GENERAL COI
- + D: Pending; 290218; 11195-1;320;DATA REQUIF
- + D: Closed; 290217; 11195-1;160;NEW REGISTR
- Data Requirements

DP: 220722

Ingredient: Sulfur dioxide

Expedite: ☐ Yes ☒ No

Beans: 1

DPKG Title:

Data Package Dates: Last Possible Science Due Date: 25-Apr-2007

Sent to

Sent From

Organization: HED / RRB2

RD / FB

Team:

Reviewer: ANIELSEN

JBAZUIN

Label?: ☒ Yes ☐ NoCSF?: ☐ Yes ☒ No

Instructions: to whom it may concern in HED-RCAB:
 Please route the enclosed labeling amendment
 proposal for this product, the SO2 gas (sulfur dioxide)
 fumigant, to the appropriate review group. The
 amendment request involves adding treatment of grapes
 to be used for wine or in fermentation and to be used



William Hazel/DC/USEPA/US

09/25/2007 12:24 PM

To MaryE Proctor/DC/USEPA/US@EPA, Esther Williams/DC/USEPA/US@EPA

cc John Bazuin/DC/USEPA/US@EPA, Tony Kish/DC/USEPA/US@EPA, Alan
Nielsen/DC/USEPA/US@EPA

bcc

Subject Fw: URGENT BEAN CLOSING NEEDED

Hi Ladies! Could one of you PLEASE close this bean (D220722) out for RD? According to Tony Kish, it needs to be done today! It was created 10 years ago and HED never did any work and won't ever need to. Thanks, Bill

----- Forwarded by William Hazel/DC/USEPA/US on 09/25/2007 12:20 PM -----



Tony Kish/DC/USEPA/US

09/24/2007 05:59 PM

To Alan Nielsen/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA, John

Redden/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA

cc John Bazuin/DC/USEPA/US@EPA

Subject URGENT BEAN CLOSING NEEDED

Greetings -- We are done with SO2 fumigation of wooden wine barrells and corks so we need the RRB2 BEAN #220722 and RIMUERB BEAN #339873 shown below closed ASAP. Please close using a date no later than 9/24/07. Can you please advise when this happens.

Many Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443



Explore Registrations

Reg Number: 11195-1 Reg. Type: Product Registration - Section 3 Status: Conditionally Registered (17-Jul-19)
 Name: THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE <View Registration Details>

(No New Receipts)

S.	Submission Type	OPP Rec'd Date	Resubmission	Description
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- ...Decisions...
- + D: Closed; 347801; 11195-1;300;LABEL REVISI...
 - + D: Closed; 347728; 11195-1;W01;ULTRA SMALL
 - + D: Closed; 347005; 11195-1;V12;FEE REDUCTH
 - D: Pending; 290220; 11195-1;R17;NEW USE;EA
 - + S: 817066 9/21/2007; Amendment; 11195
 - + S: 816866 9/13/2007; Amendment; 11195
 - S: 809035 3/22/2007; Amendment; 11195
 - + DP 339873;RD / RIMUERB; Last Possi.
 - + DP 342914;RD / RIMUERB; Complete I
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 - + D: Pending; 290218; 11195-1;320;DATA REQUIF
 - + D: Closed; 290217; 11195-1;160;NEW REGISTF
 - + Data Requirements

DP: 220722

Ingredient: Sulfur dioxide

Expedite: ☐ Yes ☒ No

Beans: 1

DPKG Title:

Data Package Dates: Last Possible Science Due Date: 25-Apr-2007

Sent to

Organization: HED / RRB2

Team:

Reviewer: ANIELSEN

Label?: ☒ Yes ☐ No

Sent From

RD / FB

JBAZUIN

CSF?: ☐ Yes ☒ No

Instructions: to whom it may concern in HED-RCAB:
 Please route the enclosed labeling amendment proposal for this product, the SO2 gas (sulfur dioxide) fumigant, to the appropriate review group. The amendment request involves adding treatment of grapes to be used for wine or in fermentation and to be used



William Hazel/DC/USEPA/US

09/25/2007 09:52 AM

To Jess Rowland/DC/USEPA/US@EPA, Elizabeth Coyle/DC/USEPA/US@EPA

cc Alan Nielsen/DC/USEPA/US@EPA, Tony Kish/DC/USEPA/US@EPA, John Bazuin/DC/USEPA/US@EPA

bcc

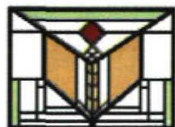
Subject Fw: URGENT BEAN CLOSING NEEDED

Jess and Weezie,

Can you guys close out a bean D220722 for RD? They need it done today! The bean was created in error 10 years ago. HED never did any work on it. Thanks,

Bill

----- Forwarded by William Hazel/DC/USEPA/US on 09/25/2007 09:46 AM -----



Tony Kish/DC/USEPA/US

09/24/2007 05:59 PM

To Alan Nielsen/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA, John

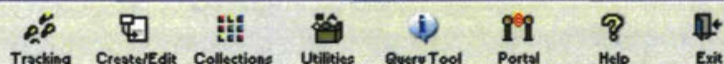
Redden/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA

cc John Bazuin/DC/USEPA/US@EPA

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Registration Division
703-308-9443



Explore Registrations

Reg Number: 11195-1 Reg. Type: Product Registration - Section 3 Status: Conditionally Registered (17-Jul-19)

Name: THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE <View Registration Details>

(No New Receipts)

S:	Submission Type	OPP Rec'd Date	Resubmission	Description
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 - S: 809035 3/22/2007; Amendment; 11195
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 - S: 490429 7/13/1995; Amendment; 11195
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- + D: Pending; 290218; 11195-1;320;DATA REQUIF
- + D: Closed; 290217; 11195-1;160;NEW REGISTR
- + Data Requirements

DP: 220722

Ingredient: Sulfur dioxide

Expedite: ☐ Yes ☒ No

Beans: 1

DPKG Title:

Data Package Dates: Last Possible Science Due Date: 25-Apr-2007

Sent to

Organization: HED / RRB2

Team:

Reviewer: ANIELSEN

Label?: ☒ Yes ☐ No

Sent From

RD / FB

JBAZUIN

CSF?: ☐ Yes ☒ No

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Please route the enclosed labeling amendment
proposal for this product, the SO2 gas (sulfur dioxide)
fumigant, to the appropriate review group. The
amendment request involves adding treatment of grapes
to be used for wine or is intended to be used





John Redden/DC/USEPA/US

09/25/2007 07:26 AM

To Tony Kish/DC/USEPA/US@EPA

cc Alan Nielsen/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA, John Bazuin/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA

bcc

Subject Re: URGENT BEAN CLOSING NEEDED

Tony

This BEAN is for the possible upgrade of the radiolabeled study. Bob Tomerlin is working on it. If I close it I will not have a BEAN, I will have to stop Bob from working on this study.

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Please advise.

John

Tony Kish/DC/USEPA/US



Tony Kish/DC/USEPA/US

09/24/2007 05:59 PM

To Alan Nielsen/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA, John Redden/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA

cc John Bazuin/DC/USEPA/US@EPA

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Team 22, Fungicide Branch;
Registration Division
703-308-9443



Explore Registrations

Reg Number: 11195-1 Reg. Type: Product Registration - Section 3 Status: Conditionally Registered (17-Jul-15)
 Name: THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE <View Registration Details>

(No New Receipts)

S.	Submission Type	OPP Rec'd Date	Resubmission	Description
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...Decisions...

- + D: Closed; 347801; 11195-1;300;LABEL REVISI
- + D: Closed; 347728; 11195-1;W01;ULTRA SMALL
- + D: Closed; 347005; 11195-1;V12;FEE REDUCTI
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 - + S: 816866 9/13/2007; Amendment; 11195
 - S: 809035 3/22/2007; Amendment; 11195
 - + DP 339873;RD / RIMUJRB; Last Possi.
 - + DP 342914;RD / RIMUJRB; Complete I
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- + D: Pending; 290218; 11195-1;320;DATA REQUIF
- + D: Closed; 290217; 11195-1;160;NEW REGISTF
- + Data Requirements

DP: 220722

Ingredient: Sulfur dioxide

Expedite: ☐ Yes ☒ No

Beans: 1

DPKG Title:

Data Package Dates: Last Possible Science Due Date: 25-Apr-2007

Sent to

Sent From

Organization: HED / RRB2

RD / FB

Team:

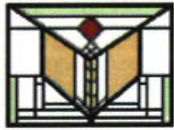
Reviewer: ANIELSEN

JBAZUIN

Label?: ☒ Yes ☐ NoCSF?: ☐ Yes ☒ No

Instructions: to whom it may concern in HED-RCAB:
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 proposal for this product, the SO₂ gas (sulfur dioxide)
 fumigant, to the appropriate review group. The
 amendment request involves adding treatment of grapes
 to be used for wine or is intended for use and to be used





Tony Kish/DC/USEPA/US

09/24/2007 05:59 PM

To Alan Nielsen/DC/USEPA/US@EPA, William Hazel/DC/USEPA/US@EPA, John Redden/DC/USEPA/US@EPA, Dan Rosenblatt/DC/USEPA/US@EPA
cc John Bazuin/DC/USEPA/US@EPA

bcc

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Many Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443



Explore Registrations

Reg Number: 11195-1 Reg. Type: Product Registration - Section 3 Status: Conditionally Registered (17-Jul-19)
Name: THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE <View Registration Details>

(No New Receipts)

S.	Submission Type	OPP Rec'd Date	Resubmission	Description
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...Decisions...

- + D: Closed; 347801; 11195-1;300;LABEL REVISI
- + D: Closed; 347728; 11195-1;W01;ULTRA SMALL
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- D: Pending; 290220; 11195-1;R17;NEW USE;EA
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 - + S: 816866 9/13/2007; Amendment; 11195
 - S: 809035 3/22/2007; Amendment; 11195
 - + DP 339873;RD / RIMUERB; Last Possi.
 - + DP 342914;RD / RIMUERB; Complete I
 - + S: 767497 9/9/2004; Amendment; 11195
 - S: 490429 7/13/1995; Amendment; 11195
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- + D: Closed; 290219; 11195-1;350;GENERAL COI
- + D: Pending; 290218; 11195-1;320;DATA REQUIF
- + D: Closed; 290217; 11195-1;160;NEW REGISTR
- + Data Requirements

DP: 220722

Ingredient: Sulfur dioxide

Expedite: ☐ Yes ☒ No

Beans: 1

DPKG Title:

Data Package Dates: Last Possible Science Due Date: 25-Apr-2007

Sent to

Organization: HED / RRB2

Team:

Reviewer: ANIELSEN

Label?: ☒ Yes ☐ No

Instructions:

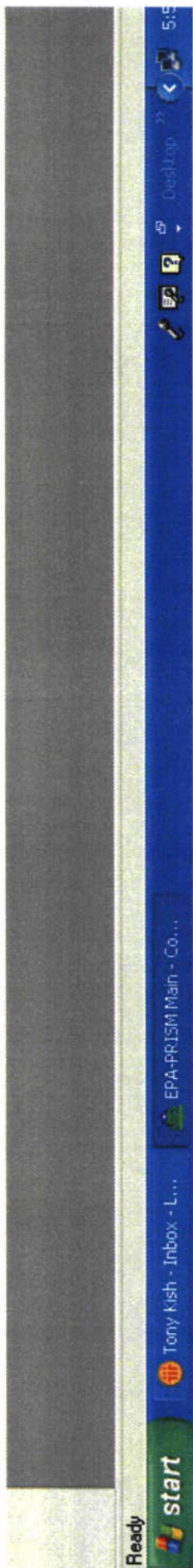
to whom it may concern in HED-RCAB:
Please route the enclosed labeling amendment
proposal for this product, the SO2 gas (sulfur dioxide)
fumigant, to the appropriate review group. The
amendment request involves adding treatment of grapes
to be used for wine or juice production, and to be used

Sent From

RD / FB

JBAZUIN

CSF?: ☐ Yes ☒ No



Text Comparison

Documents Compared

011195-00001.label.application.manual.received.20070913.Snowden - THE FRUIT DOCTOR Application Manual.pdf

011195-00001.label.application.manual.received.20070921.Snowden - THE FRUIT DOCTOR Application Manual.pdf

Summary

12 word(s) added

156 word(s) deleted

3612 word(s) matched

6 block(s) matched

Adobe Acrobat comparison of the 11195-1 Application Manual label component received on 9/21/07 with the same component received on 9/13/07.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

~~SMALL CYLINDER~~

~~GRAPES~~

~~For post-harvest use only on grapes held in cold storage to suppress spread of grey mold caused by *Botrytis cinerea*.~~

~~**APPLICATION TIMING:** SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation can be applied in a truck or railcar if the grapes have been gassed three (3) or fewer times.~~

~~Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.~~

~~For warehouse use, refer to Warehouse Storage section of this Application Manual.~~

[deleted]

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc., system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO_2 must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

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FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize effects of non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels - Using Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work

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After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production: Fumigate the cork to reduce effects of non-public [added]
[added] health fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork

area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

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Snowden/SO₂label/ 9-07

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Snowden/SO₂label/ 9-07



aalterri@aol.com
09/21/2007 04:26 PM

To John Bazuin/DC/USEPA/US@EPA
cc snowdenent@attglobal.net, Tony Kish/DC/USEPA/US@EPA
bcc
Subject Revised Fruit Doctor label per telephone conversation earlier today

Dear John:

I discussed the "SMALL CYLINDER" section of The Application Manual with Snowden Enterprises and we both agree with EPA's opinion that this section is redundant wording and should be deleted. At one point, many years ago this section may have been relevant, but at this time, the wording does seem to be a duplicate of other wording on the label. Attached is a revised label with this section deleted.

One other change made to the label was to add wording we talked about on the phone that had previously been added to the Cleaning Barrels section, but was not added to the Fumigating Corks section. I added "effects of non-public health" to the existing label wording. Page 9, 1st paragraph under "Fumigating corks used in wine production".

Thank you for all of your assistance. Please let me know if any other information is needed.

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

Email and AIM finally together. You've gotta check out free [AOL Mail!](#)



Snowden - THE FRUIT DOCTOR Application Manual.pdf



John Bazuin/DC/USEPA/US
09/27/2007 08:08 AM

To Tony Kish/DC/USEPA/US
cc
bcc
Subject Re: Fw: Follow- up Re: Response to your question re: what the wine industry is currently using to sanitize corks and barrels

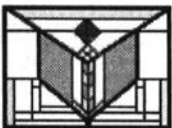
Tony,

I have been printing off all of this correspondence, and all of it will go into the file for The Fruit Doctor.

John Bazuin

~~~~~

Tony Kish/DC/USEPA/US



Tony Kish/DC/USEPA/US  
09/26/2007 04:58 PM

To John Bazuin/DC/USEPA/US@EPA  
cc  
Subject Fw: Follow- up Re: Response to your question re: what the wine industry is currently using to sanitize corks and barrels

John -- if it's not too late can this compliance relevant email be added to the ejkt submission?

----- Forwarded by Tony Kish/DC/USEPA/US on 09/26/2007 04:57 PM -----



aalterri@aol.com  
09/26/2007 04:24 PM

To Tony Kish/DC/USEPA/US@EPA  
cc snowdenent@attglobal.net, John Bazuin/DC/USEPA/US@EPA  
Subject Follow- up Re: Response to your question re: what the wine industry is currently using to sanitize corks and barrels

Mr. Kish -

As another follow-up to your e-mail re: fumigating corks and barrels with SO<sub>2</sub>, it occurred to me that EPA may not be aware of CDPR's position re: Snowden's product. There has been a 50000 series, California only, active registration for the Fruit Doctor that has covered cork and barrel fumigation for many years. The State has been trying to phase out these registrations for years, but have kept Snowden's active as long as the EPA review of their amendment for these uses has been pending. Snowden has not been able to register the use in any other states, but the "California only" registration has been kept current. Now that the label amendment has been accepted, Snowden can apply to other states for these SO<sub>2</sub> uses.

You may already have been aware of this information, but I wanted to follow-up with you in case you were not.

Thank you again for your assistance in completing this pending action.

Sincerely,

Terri

Terri Siemer-Aal  
Regulatory Consultant  
Associate, Siemer & Associates, Inc.  
Agent for Snowden Enterprises, Inc.

-----Original Message-----

From: Kish.Tony@epamail.epa.gov

To: aalterri@aol.com

Cc: Bazuin.John@epamail.epa.gov; Giles-Parker.Cynthia@epamail.epa.gov

Sent: Tue, 25 Sep 2007 6:32 am

Subject: Re: Response to your question re: what the wine industry is currently using to sanitize corks and barrels

Terri --

1. If the industry for years has been advertising and using SO2 for pesticidal purposes on wooden wine barrels and wine corks w/o EPA approval, then why is that not an advertising violation of FIFRA under section 168.22?
2. BTW, the original and latest revised Fruit Doctor label (approved this week) does not have any "sanitization" or "disinfection" claims, and can not make such claims w/o further protocols/data being submitted and found acceptable by EPA.

Thanks,  
Tony Kish, Product Manager,  
Team 22, Fungicide Branch;  
Registration Division  
703-308-9443

[aalterri@aol.com](mailto:aalterri@aol.com)

09/24/2007 06:08  
PM

To  
Tony Kish/DC/USEPA/US@EPA  
cc

Subject

Response to your question re:  
what the wine industry is  
currently using to sanitize corks  
and barrels

Dear Mr. Kish:

In response to your question regarding SO<sub>2</sub>: What is the industry currently using to sanitize corks and barrels? I placed a call to Snowden Enterprises, who in turned placed a call to a winery representative. In response to your question, the industry is using SO<sub>2</sub> gas to fumigate their corks and barrels. Snowden does not make any written or verbal recommendations for this use, but this use has been the most common practice for many years. Sulfur wicks and sulfur disks are also available for use, but these are not commonly used.

Please let me know if this answers your question sufficiently, or if you need any additional information.

Thank you,

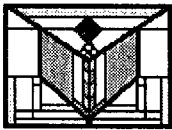
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---

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Tony Kish/DC/USEPA/US  
09/26/2007 04:59 PM

To aalterri@aol.com  
cc John Bazuin/DC/USEPA/US@EPA,  
snowdenent@attglobal.net  
bcc  
Subject Re: Follow- up Re: Response to your question re: what the  
wine industry is currently using to sanitize corks and barrels  


OK Many Thanks,

Tony Kish, Product Manager,  
Team 22, Fungicide Branch;  
Registration Division  
703-308-9443  
aalterri@aol.com



aalterri@aol.com  
09/26/2007 04:24 PM

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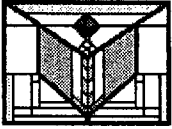
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09/26/2007 04:58 PM

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bcc  
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Cc: Bazuin.John@epamail.epa.gov; Giles-Parker.Cynthia@epamail.epa.gov  
Sent: Tue, 25 Sep 2007 6:32 am  
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Thanks,  
Tony Kish, Product Manager,  
Team 22, Fungicide Branch;  
Registration Division  
703-308-9443

[aalterri@aol.com](mailto:aalterri@aol.com)

09/24/2007 06:08  
PM

To  
Tony Kish/DC/USEPA/US@EPA  
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John Bazuin/DC/USEPA/US

09/21/2007 02:53 PM

To Tony Kish/DC/USEPA/US

cc

bcc

Subject News concerning Terri Siemer-Aal and The Fruit Doctor

Tony,

I have drafted an accept-with-comments label letter for Regg. No. 11195-1. It is attached. I also talked to Terri about the "SMALL CYLINDER" section of the Application Manual. I told her that the meaning of the title and the purpose of the section are unclear to us, and that at least part of the text in the section duplicates text in other sections. Terri said that she will discuss it with Snowden and send us revised language for the section by this Monday (and maybe even by COB today). She will do this as a revised page 8, so that I will not have to recompare the entire Application Manual. We can accept the label submitted on September 13, 2007 with page 8 from that label superseded by the revised page 8 that will soon be submitted.

John Bazuin



11195-1.Woidleta.doc





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Terri Siemer-Aal  
Terri Siemer-Aal Regulatory Consulting  
Agent for: Snowden Enterprises, Inc.  
1612 11<sup>th</sup> Street  
Reedley, California 93654

Subject: The Fruit Doctor  
EPA Registration Number 11195-1  
Your amended label submitted by e-mail on September 13,  
2007, superseding a label submitted on June 2, 19954 and  
resubmitted on September 8, 2004

Dear Mrs. Siemer-Aal,

The amended master label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable, provided that you comply with the following conditions.

1. Make the following changes to the label.

a. On the Main Label, add a graphic that consists of a skull and crossbones over the word "POISON" in a box, under or beside the Signal Word "DANGER - PELIGRO".

b. Move the Spanish-language statement "PRECAUCION AL USUARIOS: si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente." up the label to immediately follow the Signal Word and skull and crossbones graphic.

c. On the Cylinder label, add a graphic that consists of a skull and crossbones over the word "POISON" in a box under or beside the Signal Word "DANGER - PELIGRO".

d. On the first page of the Application Manual, add a skull and crossbones over the word "POISON" in a box under or beside the Signal Word "DANGER - PELIGRO".

e. In the "Protective Clothing" subsection of the "PERSONAL PROTECTIVE EQUIPMENT" on page 3 of the Application Manual, change the first sentence from "Wear long-sleeved shirt and long pants, gloves and boots when handling this product." to "Wear long-sleeved shirt and long pants, gloves and boots when handling this product." Change the beginning of the following sentence from "If braided hoses are..." to "Until braided hoses are...".

f. In the placard box on page 4 of the Application Manual, the box on the placard which reads "Insert skull and crossbones art" must contain a skull and crossbones over the word "POISON" on the final printed label.

g. In the first sentence in the "FUMIGATING CORKS USED IN WINE PRODUCTION" section on page 10 of the Application Manual change "...fumigate the cork to reduce fungal or bacterial growth..." to "...fumigate the cork to reduce non-public health fungal or bacterial growth...".

2. Submit one copy of your final printed labeling before you release the product for shipment.

If you have any questions about this letter, please contact John Bazuin at (703)305-7381.

Sincerely yours,

Tony Kish, Product Manager (22)  
Fungicide Branch  
Registration Division (7505P)

Attachment: Master label stamped "ACCEPTED with COMMENTS"



John Bazuin/DC/USEPA/US  
09/19/2007 08:22 AM

To Tony Kish/DC/USEPA/US  
cc aalterri@aol.com  
bcc  
Subject Re: Snowden Enterprises - The Fruit Doctor

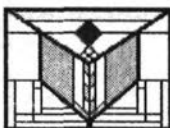
Tony and Terri,

I printed the 3 label components last Friday and am now comparing them to the last accepted label for 11195-1. I'll get in touch with Terri immediately concerning any issues that pop up.

John Bazuin

~~~~~

Tony Kish/DC/USEPA/US



Tony Kish/DC/USEPA/US
09/18/2007 05:40 PM

To aalterri@aol.com
cc John Bazuin/DC/USEPA/US@EPA
Subject Re: Snowden Enterprises - The Fruit Doctor

Terri -- We received your revised labels by email. Do not send them by Fedex as we will work with the email versions only.

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
aalterri@aol.com



aalterri@aol.com
09/18/2007 05:19 PM

To Tony Kish/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA
cc
Subject Snowden Enterprises - The Fruit Doctor

This is just a quick check-in to follow-up on my last e-mail to both of you, which included revised Snowden labels. Did both of you receive them? Do you want me to wait to send hard copies by FedEx in case there are extensive comments on your end, or would you like me to get label copies out by FedEx as soon as possible.

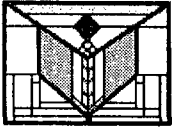
Please let me know at your convenience.

Thank you,

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

Email and AIM finally together. You've gotta check out free AOL Mail!



Tony Kish/DC/USEPA/US
09/18/2007 05:45 PM

To John Bazuin/DC/USEPA/US@EPA
cc
bcc

Subject Fw: URGENT -- Revised label needed for "The Fruit Doctor"

John -- I logged this resub in for you. Her email below and my originating email are official documents for the ejkt.

----- Forwarded by Tony Kish/DC/USEPA/US on 09/18/2007 05:43 PM -----



aalterri@aol.com
09/13/2007 10:36 PM

To Tony Kish/DC/USEPA/US@EPA
cc John Bazuin/DC/USEPA/US@EPA
Subject Re: URGENT -- Revised label needed for "The Fruit Doctor"

Mr. Kish:

In response to your e-mail, attached are three revised Fruit Doctor labels in pdf format. The three labels include the cylinder (container) label (EPA copy and clean copy), main label, and Application Manual. The changes outlined in your e-mail have been made in addition to the changes required by EPA memorandum dated 7-28-07 from John Redden, conveyed in an e-mail sent to me by John Bazuin. I used John Redden's comments exactly, but kept the original first sentence in the barrel and cork section since your comments included an edit pertaining to the first sentence.

Besides making changes to the labels, answers to some of your e-mail questions are below.

Regarding the first mentioned point number 4 - What does "See attached tag" refer to? The "tag" is attached to each cylinder and indicates the container's net weight. In an effort to clarify this, I've changed the label to read "Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)".

Regarding questions pertaining to "Application Manual"

#3 - There are no OSHA regulations regarding SO₂ monitoring, however, it is verbally recommended to wineries that any time SO₂ gassing is occurring that the area be monitored at all times and monitoring equipment is sold to the wineries. It is up to the individual winery's protocol that determines how often they monitor for SO₂ levels. I did add a statement to the label in the Directions For Use section.

#7 & 8 - After discussing this point with some winery representatives, it was decided that deleting the 600-1000 ppm SO₂ statement would make sense. Their normal practice for the barrels would be to wash, dry, SO₂, rebung, and store for 4-6 weeks. If stored for more than 6

weeks, they would regas. Approximately three seconds of SO2 gas applied at a minimum 18 psi will fumigate a 60 gallon barrel. Some SO2 leaches into the wood and some escapes from pores over the course of 4-6 weeks. If the barrel was used the day after gassing, the barrel would be sterile and safe for use, however, this would not be common winery practice.

Revised labels are attached and hard copies will be formally sent to you by FedEx, but please let me know if you'd like me to hold off a couple of days before sending the FedEx hard copies in case you or John notice some additional changes that need to be made prior to sending the final label copies.

Thank you for your's and John's assistance with the completion of this registration action.

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent Snowden Enterprises, Inc.

-----Original Message-----

From: Kish.Tony@epamail.epa.gov
To: aalterri@aol.com
Cc: Bazuin.John@epamail.epa.gov
Sent: Mon, 10 Sep 2007 2:52 pm
Subject: URGENT -- Revised label needed for "The Fruit Doctor"

Hi Terri --

We need to complete this action by 9/30/07. Can you please email me and John a complete label for review this week, including the Application Manual. Please consecutively number each page. Here are some required changes. John may have more changes but I sent this after he left work today.

1. Precautionary statements -- I can not find the acute tox review for this fumigation product. Do you have a copy? If you can not find one, we will go with the conservative categories below which require the RUP special labeling. Revise the precautionary statements as per label review manual for all these categories. The label will require PPE to be specified and have a statement about a specific respirator:

oral -- 2
dermal -- 2
inhalation - 1
eye -- 1
skin - 1
sensitization - (if it's a sensitizer, add required statement?)

2. Storage and Disposal -- add the missing "Container Disposal" subtitle and relocate the appropriate container disposal directions under this title.

3. On page 1, correct "replacement copy of the application manual" to "replacement copy of the application manual".

4. On page 1, what does "See attached tag" refer to?

5. On page 1, in the condition of sale, insert "to the extent consistent with applicable law" before "Snowden's liability is limited to". Also change "to the fullest extent permitted by law, to this, "to the extent consistent with applicable law".

6. If page 2 represents the actual container label so indicate so on this page for EPA reading only. Make all changes as above to this label.

Changes to "Application Manual"

1. Change the precautionary statements as per acute tox categories.

2. Add the RUP required statements.

3. Advise how often to take SO2 measurements in the work areas.

4. Add "Container Disposal" as above.

5. Delete use for grapes during crushing as this is FDA jurisdiction.

6. Revise barrel/cork claim as ""minimize effects of non-public health fungi and/or bacteria prior to...".

7. In the statement "Gas barrels use 600-1000 ppm SO2", it's not clear how does one know they've reached 600-1000 ppm SO2 from a 18-45psi cylinder? Does the 2-3 second release time do it? No other label use indicates ppm, and the Draeger tubes are for the work area air, not the barrel air. Either explain to EPA how 2-3 seconds of gas release produces 600-1000 ppm SO2, or delete the 600-1000ppm numbers.

8. I'm not clear on the treatment process and the required efficacy contact time.

Is the efficacy contact time 30 days, or something less because as I read it, one cleans barrel, dries barrel, removes small bung (plug), pressurizes w/SO2 for 2-3 seconds, replaces small bung (plug), and then does the next barrel, as if the replaced bung holds in some residual SO2?

If the bung is immediately replaced after gassing, how does offgassing occur, or maybe minimal offgassing occurs until actual filling with wine (after 30 days) and that's where the residuals come from?

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443

aalterri@aol.com
m

07/02/2007

To
Tony Kish/DC/USEPA/US@EPA

03:26 PM

cc

Subject
The Fruit Doctor

Dear Mr. Kish:

After our telephone conversation I was able to pull Snowden's file and the amended label we were discussing (attempting to discuss on my end!). I see your point that the proposed label wording does not state the intent of use. Attached is proposed wording for each claim that would clarify the need for using SO2 on wine barrels and corks. Data to support these claims was submitted with the original amendment package. Please let me know if this wording helps to clarify the label's intent for these claims, or if you'd like the wording changed in any way.

I will give you a call as soon as I hit send on this e-mail...

Terri Aal

AOL now offers free email to everyone. Find out more about what's free from AOL at AOL.com. (See attached file: Fruit Doctor -new claims portion of label.doc)

Email and AIM finally together. You've gotta check out free AOL Mail!



Snowden Ent. The Fruit Doctor label 9-2007.pdf



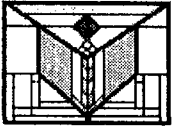
Snowden Ent. Cylinder Label 9-2007.pdf



Snowden Ent. Cylinder Label 9-2007 EPA copy.pdf



Snowden - THE FRUIT DOCTOR Application Manual.pdf



Tony Kish/DC/USEPA/US
09/18/2007 05:40 PM

To aalterri@aol.com
cc John Bazuin/DC/USEPA/US@EPA
bcc

Subject Re: Snowden Enterprises - The Fruit Doctor

Terri -- We received your revised labels by email. Do not send them by Fedex as we will work with the email versions only.

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
aalterri@aol.com



aalterri@aol.com
09/18/2007 05:19 PM

To Tony Kish/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA
cc

Subject Snowden Enterprises - The Fruit Doctor

This is just a quick check-in to follow-up on my last e-mail to both of you, which included revised Snowden labels. Did both of you receive them? Do you want me to wait to send hard copies by FedEx in case there are extensive comments on your end, or would you like me to get label copies out by FedEx as soon as possible.

Please let me know at your convenience.

Thank you,

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

Email and AIM finally together. You've gotta check out free [AOL Mail!](#)



aalterri@aol.com
09/18/2007 05:19 PM

To Tony Kish/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA
cc
bcc
Subject Snowden Enterprises - The Fruit Doctor

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Please let me know at your convenience.

Thank you,

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent for Snowden Enterprises, Inc.

Email and AIM finally together. You've gotta check out free [AOL Mail!](#)

Per the T. Kish
9/10/07 e-mail - [added]

Main label

Rcvd. 9/13/07

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

PRESSURIZED LIQUID GAS
HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF
SKIN AND EYES.

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water or any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT

Sulfur Dioxide
TOTAL

BY WEIGHT

100.0%
100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.



FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide.- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA REG. NO. 11195-1

EPA EST. NO. 11195-CA-1 or 2

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

SEE APPLICATION MANUAL DESCRIBING USE OF FRUIT DOCTOR SULFUR DIOXIDE - THIS PRODUCT IS ACCOMPANIED BY AN APPROVED APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.
2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, to the extent consistent with applicable law, Snowden's liability is limited to replacement of product or refund of purchase price. In no event shall Snowden be liable for indirect or consequential damages.

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

118

Compared to the equivalent sections in the 8/26/04 "ACCEPTED with COMMENTS" label.

changed from: \leftarrow

- "Do not breathe vapor in high concentration.
- Do not get liquid in eyes, on skin or clothing.
- Do not take internally. Wear eye and skin protection necessary to prevent contact when handling. Wash thoroughly after handling and before eating or smoking.
- "Persons with a history of respiratory problems should avoid exposure to the product."

Deleted: \leftarrow

"When cylinder is empty, close valve before returning to supplier. Only the registered is authorized to refill cylinders. Do not use cylinders for any other purpose."

Rcvd. 9/13/07

[added]

Cylinder label

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL.
READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL)
BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO
OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT

Sulfur Dioxide.....

TOTAL.....

BY WEIGHT

100.0%

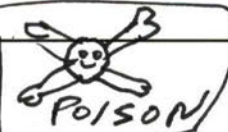
100.0%

KEEP OUT OF REACH OF CHILDREN.

DANGER - PELIGRO

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.



FIRST AID

If inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

If on skin or clothing

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If in eyes

- DO NOT wear contact lenses when working with or around sulfur dioxide
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If swallowed

- (LIQUID SULFUR DIOXIDE)
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting.
- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**PRESSURIZED LIQUID GAS - HAZARDOUS VAPOR AND LIQUID -
LIQUID CAUSES BURNS OF SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

Manufactured for: Snowden Enterprises, Inc., P.O. Box 751, Fresno, California 93712

Net Contents:

(See Attached Tag for Pounds Sulfur Dioxide Net Contents)

Compared to the equivalent sections in the 8/26/04 "ACCEPTED with COMMENTS" label.

120

Per T. Kish
9/10/07
e-mail

[added] ← "Lbs." deleted

[added]

[added]

[added]

"APPROVED" deleted

[moved up]

[added]

Per the T. Kish
9/10/07 e-mail

[added]

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR

APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

DANGER – PELIGRO

PRESSURIZED LIQUID GAS
KEEP OUT OF REACH OF CHILDREN



Hazardous vapor and liquid – Liquid causes burns of skin and eyes.

Fatal if inhaled in high concentrations. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear coveralls over long sleeved shirt and long pants, chemical resistant boots and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

[over] →

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

"It is recommended that persons with a history of respiratory problems should not be exposed to sulfur dioxide." deleted

Compared to the equivalent sections in the
8/26/04 "ACCEPTED with COMMENTS" label. 121

→ changed from:

"Hazardous liquid and vapor under pressure. Inhalation may be fatal or cause serious acute illness. Prolonged or repeated exposure may cause impaired lung function. Do not breathe vapor. Liquid or excessive vapor can cause serious skin or eye injury. Do not get liquid on skin, in eyes or on clothing."

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. DO NOT apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. DO NOT apply any chemical or ointment to the eyes. DO NOT wear contact lenses when working with or around sulfur dioxide. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements

for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period. It is recommended that any time SO₂ gassing is occurring, that the area be monitored for SO₂ levels at all times.

PERSONAL PROTECTIVE EQUIPMENT

Protective Clothing

Wear long-sleeved shirt and long pants, gloves and boots when handling this product. ~~Until~~ braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body protective clothing impervious to sulfur dioxide, and gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

Respiratory Protection

If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube, Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator. No one should enter a high SO₂ concentration area using a short-term full-face respirator because these only have a limited capacity for protection. It is not possible for someone working in a high SO₂ concentration area to know when the limit of a full-face respirator has been reached.

POSTING OF FUMIGATED WAREHOUSE AREA

Before fumigation, the applicator must post markings at all entrances to the fumigated areas with signs bearing the following statements in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

→ Changed From:

"Full-Face respirator. This type mask may be used for short exposures of very limited durations, but user must be aware of possible overloading in unmeasured concentrations of SO_2 . A NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator should always be available for emergencies."

Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

POSTING SIGNS (FUMIGANT MARKING) FOR TRUCKS, VANS, AND RAILCARS

Proper fumigant markings must be prominently displayed on all trucks, vans or railcars that have been fumigated with SO₂ prior to transport. The fumigant markings must follow all current required Department of Transportation regulations. Fumigant marking must be displayed so that it can be seen by any person attempting to access the interior of the transport vehicle or freight container. The fumigant marking must be formatted as shown below:

The fumigant marking must consist of red letters on white background that is at least 30 cm (11.8 inches) wide and at least 25 cm (9.8 inches) high. The fumigant marking must read as follows:

<p>DANGER</p> <p>Insert skull and crossbones art</p> <p>THIS UNIT IS UNDER FUMIGATION WITH SULFUR DIOXIDE, LIQUEFIED APPLIED ON</p> <p>Date _____ Time _____</p> <p>DO NOT ENTER</p>

} changed From



POISON ✓

The fumigant marking must stay on the truck, van, or railcar until the fumigated container is unloaded and the transport vehicle or freight container has undergone sufficient aeration to assure that it does not pose an unreasonable risk to health and safety (below the threshold concentration of 2.0 ppm).

The applicator must show on the manifest accompanying the load that the trailer has been fumigated with SO₂. The statement on the manifest must show the following:

1. Trailer fumigated with SO₂.
2. The date and time of fumigation.
3. Name of fumigant used.

changed from
"AERATION AND
RE-ENTRY"

RE-ENTRY AFTER FUMIGATION

After fumigation, treated areas must be **undisturbed** until the level of sulfur dioxide is at or below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

changed from "STORAGE, HANDLING, AND DISPOSAL"

STORAGE AND DISPOSAL, SPILL AND LEAK PROCEDURES

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use.

[moved
up]

[reorga-
nized]

Pesticide Disposal – Pesticide wastes are acutely **hazardous**. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

changed from "toxic"

[moved
down
and re-
organized]

per the T. Kish
[added] - 9/10/07 e-mail

Container Disposal - When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Do not use cylinders for any other purpose. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

[moved]

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote airflow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by *Botrytis cinerea*. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow on a 7-10 day interval. For fruit being shipped to market soon after harvest, SO_2 fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO_2 through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO_2 saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficiency. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO_2 from the recirculating air to equal the rate of removal by direct venting. *changed from "efficiency" to "efficacy"*

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:

Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). *changed from "cylinder"*

Connect the bottle to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY – LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

SMALL CYLINDER ←

GRAPES

For post-harvest use only on grapes held in cold storage to suppress spread of grey mold caused by Botrytis cinerea.

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation can be applied in a truck or railcar if the grapes have been gassed three (3) or fewer times.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

For warehouse use, refer to Warehouse Storage section of this Application Manual.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc., system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize effects of non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels ~~Using~~ Gas Cylinder only (no education tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work

This section also compared to the 7/28/07 ARIA review.

[This sentence is not in the review.]

"using 600-1000 ppm SO₂" deleted

From the 9/10/07 T. Kish e-mail

[This sentence is not in the review.]

[added]

[added]

changed from "with"

[added]

changed from "use a"

[added]

[added]

[added]

area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

[added]

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

[added]

This sentence is not in the review.

FUMIGATING CORKS USED IN WINE PRODUCTION

[added]

For corks used in wine production, fumigate the cork to reduce fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

[added]

To fumigate cork bags, use a Gas Cylinder only (no education tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

[added]

non-public health

Snowden/SO₂label/ 9-07

changed from
"Revision date 7/2004"



aalterri@aol.com
09/13/2007 10:36 PM

To Tony Kish/DC/USEPA/US@EPA
cc John Bazuin/DC/USEPA/US@EPA
bcc
Subject Re: URGENT -- Revised label needed for "The Fruit Doctor"

Mr. Kish:

In response to your e-mail, attached are three revised Fruit Doctor labels in pdf format. The three labels include the cylinder (container) label (EPA copy and clean copy), main label, and Application Manual. The changes outlined in your e-mail have been made in addition to the changes required by EPA memorandum dated 7-28-07 from John Redden, conveyed in an e-mail sent to me by John Bazuin. I used John Redden's comments exactly, but kept the original first sentence in the barrel and cork section since your comments included an edit pertaining to the first sentence.

Besides making changes to the labels, answers to some of your e-mail questions are below.

Regarding the first mentioned point number 4 - What does "See attached tag" refer to? The "tag" is attached to each cylinder and indicates the container's net weight. In an effort to clarify this, I've changed the label to read "Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)".

Regarding questions pertaining to "Application Manual"

#3 - There are no OSHA regulations regarding SO₂ monitoring, however, it is verbally recommended to wineries that any time SO₂ gassing is occurring that the area be monitored at all times and monitoring equipment is sold to the wineries. It is up to the individual winery's protocol that determines how often they monitor for SO₂ levels. I did add a statement to the label in the Directions For Use section.

#7 & 8 - After discussing this point with some winery representatives, it was decided that deleting the 600-1000 ppm SO₂ statement would make sense. Their normal practice for the barrels would be to wash, dry, SO₂, rebung, and store for 4-6 weeks. If stored for more than 6 weeks, they would regas. Approximately three seconds of SO₂ gas applied at a minimum 18 psi will fumigate a 60 gallon barrel. Some SO₂ leaches into the wood and some escapes from pores over the course of 4-6 weeks. If the barrel was used the day after gassing, the barrel would be sterile and safe for use, however, this would not be common winery practice.

Revised labels are attached and hard copies will be formally sent to you by FedEx, but please let me know if you'd like me to hold off a couple of days before sending the FedEx hard copies in case you or John notice some additional changes that need to be made prior to sending the final label copies.

Thank you for your's and John's assistance with the completion of this registration action.

Terri

Terri Siemer-Aal
Regulatory Consulting
Associate, Siemer & Associates, Inc.
Agent Snowden Enterprises, Inc.

-----Original Message-----

From: Kish.Tony@epamail.epa.gov
To: aalterri@aol.com
Cc: Bazuin.John@epamail.epa.gov
Sent: Mon, 10 Sep 2007 2:52 pm
Subject: URGENT -- Revised label needed for "The Fruit Doctor"

Hi Terri --

We need to complete this action by 9/30/07. Can you please email me and John a complete label for review this week, including the Application Manual. Please consecutively number each page. Here are some required changes. John may have more changes but I sent this after he left work today.

1. Precautionary statements -- I can not find the acute tox review for this fumigation product. Do you have a copy? If you can not find one, we will go with the conservative categories below which require the RUP special labeling. Revise the precautionary statements as per label review manual for all these categories. The label will require PPE to be specified and have a statement about a specific respirator:

oral -- 2
dermal -- 2
inhalation - 1
eye -- 1
skin - 1
sensitization - (if it's a sensitizer, add required statement?)

2. Storage and Disposal -- add the missing "Container Disposal" subtitle and relocate the appropriate container disposal directions under this title.

3. On page 1, correct "replacement copy of the application manual" to "replacement copy of the application manual".

4. On page 1, what does "See attached tag" refer to?

5. On page 1, in the condition of sale, insert "to the extent consistent with applicable law" before "Snowden's liability is limited to". Also change "to the fullest extent permitted by law, to this, "to the extent consistent with applicable law".

6. If page 2 represents the actual container label so indicate so on this page for EPA reading only. Make all changes as above to this label.

Changes to "Application Manual"

1. Change the precautionary statements as per acute tox categories.
2. Add the RUP required statements.
3. Advise how often to take SO2 measurements in the work areas.
4. Add "Container Disposal" as above.
5. Delete use for grapes during crushing as this is FDA jurisdiction.
6. Revise barrel/cork claim as ""minimize effects of non-public health fungi and/or bacteria prior to...".
7. In the statement "Gas barrels use 600-1000 ppm SO2", it's not clear how does one know they've reached 600-1000 ppm SO2 from a 18-45psi cylinder? Does the 2-3 second release time do it? No other label use indicates ppm, and the Draeger tubes are for the work area air, not the barrel air. Either explain to EPA how 2-3 seconds of gas release produces 600-1000 ppm SO2, or delete the 600-1000ppm numbers.
8. I'm not clear on the treatment process and the required efficacy contact time.

Is the efficacy contact time 30 days, or something less because as I read it, one cleans barrel, dries barrel, removes small bung (plug), pressurizes w/SO2 for 2-3 seconds, replaces small bung (plug), and then does the next barrel, as if the replaced bung holds in some residual SO2?

If the bung is immediately replaced after gassing, how does offgassing occur, or maybe minimal offgassing occurs until actual filling with wine (after 30 days) and that's where the residuals come from?

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443

aalterri@aol.com
m

07/02/2007
03:26 PM

To
Tony Kish/DC/USEPA/US@EPA
cc

Subject
The Fruit Doctor

Dear Mr. Kish:

After our telephone conversation I was able to pull Snowden's file and the amended label we were discussing (attempting to discuss on my end!). I see your point that the proposed label wording does not state the intent of use. Attached is proposed wording for each claim that would clarify the need for using SO2 on wine barrels and corks. Data to support these claims was submitted with the original amendment package. Please let me know if this wording helps to clarify the label's intent for these claims, or if you'd like the wording changed in any way.

I will give you a call as soon as I hit send on this e-mail...

Terri Aal

AOL now offers free email to everyone. Find out more about what's free from AOL at AOL.com. (See attached file: Fruit Doctor -new claims portion of label.doc)

Email and AIM finally together. You've gotta check out free AOL Mail!



Snowden Ent. The Fruit Doctor label 9-2007.pdf



Snowden Ent. Cylinder Label 9-2007.pdf



Snowden Ent. Cylinder Label 9-2007 EPA copy.pdf



Snowden - THE FRUIT DOCTOR Application Manual.pdf

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

DANGER

**PRESSURIZED LIQUID GAS
HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF
SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water or any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

**THE FRUIT DOCTOR
COMPRESSED SULFUR DIOXIDE**

ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide	100.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide.- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA REG. NO. 11195-1
PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

EPA EST. NO. 11195-CA-1 or 2

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**SEE APPLICATION
MANUAL DESCRIBING USE
OF FRUIT DOCTOR SULFUR
DIOXIDE - THIS PRODUCT IS
ACCOMPANIED BY AN
APPROVED APPLICATION
MANUAL. READ AND
UNDERSTAND THE ENTIRE
LABELING (LABEL AND
APPLICATION MANUAL)
BEFORE USING THIS
PRODUCT. CONTACT
SNOWDEN ENTERPRISES,
INC. TO OBTAIN A
REPLACEMENT COPY OF
THE APPLICATION
MANUAL.**

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.
2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, to the extent consistent with applicable law, Snowden's liability is limited to replacement of product or refund of purchase price. In no event shall Snowden be liable for indirect or consequential damages.

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

EPA NOTE: Cylinder label (i.e. container label)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL.
READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL)
BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO
OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT

Sulfur Dioxide.....

TOTAL.....

BY WEIGHT

100.0%

100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID

If inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

**If on skin
or clothing**

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If in eyes

- DO NOT wear contact lenses when working with or around sulfur dioxide
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

**If
swallowed**

- (LIQUID SULFUR DIOXIDE)
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting.
- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR**COMPRESSED SULFUR DIOXIDE**

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL.
READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL)
BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO
OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT**BY WEIGHT**

Sulfur Dioxide..... 100.0%

TOTAL..... 100.0%

KEEP OUT OF REACH OF CHILDREN**DANGER – PELIGRO**

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS****PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR

APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

DANGER – PELIGRO

PRESSURIZED LIQUID GAS KEEP OUT OF REACH OF CHILDREN

Hazardous vapor and liquid – Liquid causes burns of skin and eyes.

Fatal if inhaled in high concentrations. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear coveralls over long sleeved shirt and long pants, chemical resistant boots and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. DO NOT apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. DO NOT apply any chemical or ointment to the eyes. DO NOT wear contact lenses when working with or around sulfur dioxide. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements

for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period. It is recommended that any time SO₂ gassing is occurring, that the area be monitored for SO₂ levels at all times.

PERSONAL PROTECTIVE EQUIPMENT

Protective Clothing

Wear long-sleeved shirt and long pants, gloves and boots when handling this product. If braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body protective clothing impervious to sulfur dioxide, and gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

Respiratory Protection

If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube, Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator. No one should enter a high SO₂ concentration area using a short-term full-face respirator because these only have a limited capacity for protection. It is not possible for someone working in a high SO₂ concentration area to know when the limit of a full-face respirator has been reached.

POSTING OF FUMIGATED WAREHOUSE AREA

Before fumigation, the applicator must post markings at all entrances to the fumigated areas with signs bearing the following statements in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

POSTING SIGNS (FUMIGANT MARKING) FOR TRUCKS, VANS, AND RAILCARS

Proper fumigant markings must be prominently displayed on all trucks, vans or railcars that have been fumigated with SO_2 prior to transport. The fumigant markings must follow all current required Department of Transportation regulations. Fumigant marking must be displayed so that it can be seen by any person attempting to access the interior of the transport vehicle or freight container. The fumigant marking must be formatted as shown below:

The fumigant marking must consist of red letters on white background that is at least 30 cm (11.8 inches) wide and at least 25 cm (9.8 inches) high. The fumigant marking must read as follows:

<p>DANGER</p> <p>Insert skull and crossbones art</p> <p>THIS UNIT IS UNDER FUMIGATION WITH SULFUR DIOXIDE, LIQUEFIED APPLIED ON</p> <p>Date _____ Time _____</p> <p>DO NOT ENTER</p>
--

The fumigant marking must stay on the truck, van, or railcar until the fumigated container is unloaded and the transport vehicle or freight container has undergone sufficient aeration to assure that it does not pose an unreasonable risk to health and safety (below the threshold concentration of 2.0 ppm).

The applicator must show on the manifest accompanying the load that the trailer has been fumigated with SO_2 . The statement on the manifest must show the following:

1. Trailer fumigated with SO_2 .
2. The date and time of fumigation.
3. Name of fumigant used.

RE-ENTRY AFTER FUMIGATION

After fumigation, treated areas must be undisturbed until the level of sulfur dioxide is at or below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

STORAGE AND DISPOSAL, SPILL AND LEAK PROCEDURES

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use.

Pesticide Disposal – Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal - When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Do not use cylinders for any other purpose. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote airflow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by Botrytis cinerea. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow on a 7-10 day interval. For fruit being shipped to market soon after harvest, SO_2 fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO_2 through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO_2 saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficiency. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO_2 from the recirculating air to equal the rate of removal by direct venting.

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:

Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the bottle to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY – LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

SMALL CYLINDER

GRAPES

For post-harvest use only on grapes held in cold storage to suppress spread of grey mold caused by Botrytis cinerea.

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation can be applied in a truck or railcar if the grapes have been gassed three (3) or fewer times.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

For warehouse use, refer to Warehouse Storage section of this Application Manual.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc., system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize effects of non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels - Using Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work

area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production: fumigate the cork to reduce fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

Snowden/SO₂label/ 9-07



John Redden/DC/USEPA/US

09/11/2007 09:16 AM

To John Bazuin/DC/USEPA/US@EPA

cc

bcc

Subject Sulfur Dioxide

OPP Chemistry Document

Final

None

342914

Section 3 Registration

Sulfur Dioxide: Application for addition for use in cleaning barrels and fumigation corks used in wine production

011195-00001

11195-1

077601 Sulfur dioxide

CAS Number:

077601 7446-09-5

Ingredient Classification:

077601 INORGANIC

Grape, Wine

Reviewer: John Redden

Organization: RD

William Cutchin, G.
Jeffrey Herndon,
Richard Loranger

07/28/2007

Comment:



D342914.mem.doc

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

DATE: July 28, 2007

MEMORANDUM

SUBJECT: Sulfur Dioxide: Application for addition for use in cleaning barrels and fumigation corks used in wine production

Name of Pesticide Product: The Fruit Doctor/Compressed Sulfur
Dioxide
EPA Reg. No.: 11195-1
DP No.: 342914
Decision No.: D290220
PC Code: 077601

FROM: John Redden, M.S., Team Leader
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

THROUGH: George Herndon, Deputy Director
Health Effects Division (HED) (7509P)

And
Richard Loranger, Ph.D., Senior Scientist
Registration Action Branch 3 (RAB3)
HED (7509P)

And

William Cutchin
ARIA
RIMUERB
RD (7505P)

TO: Tony Kish
John Bazuin
FB
RD (7505P)

Action:

This is a request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide to include the following uses: 1) cleaning barrels used in wine production and 2) fumigation of corks used in wine production.

Background:

On August 2, 2007 a meeting was held to discuss this action. The following attended this meeting; Cynthia Giles-Parker (RD), George Herndon (HED), Richard Loranger (HED), John Bazuin (RD), Tony Kish (RD) and John Redden (RD).

As part of the discussion the Reregistration Eligibility Decision (RED) for Inorganic Sulfites was discussed (The RED was issue May 2007 with a comment period through July 23 2007). The risk assessment in this RED was largely qualitative and the meeting attendees determined that the new uses will also be covered by the RED.

George Herndon stated that these new uses could be considered non-food if appropriate residue data were provided. In the absence if such data, however these are considered food uses requiring a tolerance. However, George Herndon and Richard Loranger then determined that the empty barrel and cork use fits under the 10 ppm tolerance for grapes. This conclusion is based on the extensive dilution of any remaining residues in or on the barrel or cork by the large volume of wine. The tolerance on the grape RAC is expected to be significantly higher than residues in the wine (i.e., the processed commodity) stored in the treated barrels. A consensus was reached that this should be the way forward.

Conclusion:

ARIA recommends that the request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide for use in cleaning barrels used in wine production and fumigation of corks used in wine production be granted. It has been determined that these two uses are supported by the 10 ppm tolerance for grapes.

Labeling:

The label will be edited as follows to address these new uses:

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed with a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels using 600-1000 ppm SO₂. Use a Gas Cylinder only (no eduction

tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production:

To fumigate cork bags, use 600-1000 ppm SO₂. Use a Gas Cylinder only (no education tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated."



John Bazuin/DC/USEPA/US

09/11/2007 03:31 PM

To aalterri@aol.com

cc Tony Kish/DC/USEPA/US

bcc

Subject The Fruit Doctor label - other changes needed

Terri,

Attached is the assessment of the addition of use on corks and barrels to the label of this product. About the last page of this assessment is wording that the assessor wants used verbatim in the label for the proposed "FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION" and "FUMIGATING CORKS USED IN WINE PRODUCTION" sections, to be added to the "DIRECTIONS FOR USE". This revised language should replace the language for these sections that was originally proposed. If any of the changes are troublesome, please contact me about it(them). Tony Kish has already sent you changes to the label he expects to see made; some of these may modify the revised label language specified in the attached assessment. The proposal to add use on grapes during crush, as I think you already know, does not fall under EPA/OPP's purview. This sort of use is handled by FDA. I don't know who in FDA you would contact about this; perhaps Tony knows.

John Bazuin



11195-1.cork.and.barrel.use.assessment.20070728.D342914.doc



Tony Kish/DC/USEPA/US
09/10/2007 05:52 PM

To aalterri@aol.com
cc John Bazuin/DC/USEPA/US@EPA
bcc

Subject URGENT -- Revised label needed for "The Fruit Doctor" 

Hi Terri --

We need to complete this action by 9/30/07. Can you please email me and John a complete label for review this week, including the Application Manual. Please consecutively number each page. Here are some required changes. John may have more changes but I sent this after he left work today.

1. Precautionary statements -- I can not find the acute tox review for this fumigation product. Do you have a copy? If you can not find one, we will go with the conservative categories below which require the RUP special labeling. Revise the precautionary statements as per label review manual for all these categories. The label will require PPE to be specified and have a statement about a specific respirator.

oral -- 2
dermal -- 2
inhalation - 1
eye -- 1
skin - 1
sensitization - (if it's a sensitizer, add required statement?)

2. Storage and Disposal -- add the missing "Container Disposal" subtitle and relocate the appropriate container disposal directions under this title.

3. On page 1, correct "replacement copy of the application manual" to "replacement copy of the application manual".

4. On page 1, what does "See attached tag" refer to?

5. On page 1, in the condition of sale, insert "to the extent consistent with applicable law" before "Snowden's liability is limited to". Also change "to the fullest extent permitted by law, to this, "to the extent consistent with applicable law".

6. If page 2 represents the actual container label so indicate so on this page for EPA reading only. Make all changes as above to this label.

Changes to "Application Manual"

1. Change the precautionary statements as per acute tox categories.

2. Add the RUP required statements.

3. Advise how often to take SO2 measurements in the work areas.

4. Add "Container Disposal" as above.

5. Delete use for grapes during crushing as this is FDA jurisdiction.

6. Revise barrel/cork claim as ""minimize effects of non-public health fungi and/or bacteria prior to...".

7. In the statement "Gas barrels use 600-1000 ppm SO2", it's not clear how does one know they've reached 600-1000 ppm SO2 from a 18-45psi cylinder? Does the 2-3 second release time do it? No other label use indicates ppm, and the Draeger tubes are for the work area air, not the barrel air. Either explain to EPA how 2-3 seconds of gas release produces 600-1000 ppm SO2, or delete the 600-1000ppm

numbers.

8. I'm not clear on the treatment process and the required efficacy contact time.

Is the efficacy contact time 30 days, or something less because as I read it, one cleans barrel, dries barrel, removes small bung (plug), pressurizes w/SO2 for 2-3 seconds, replaces small bung (plug), and then does the next barrel, as if the replaced bung holds in some residual SO2?

If the bung is immediately replaced after gassing, how does offgassing occur, or maybe minimal offgassing occurs until actual filling with wine (after 30 days) and that's where the residuals come from?

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
aalterri@aol.com



aalterri@aol.com
07/02/2007 03:26 PM

To Tony Kish/DC/USEPA/US@EPA
cc
Subject The Fruit Doctor

Dear Mr. Kish:

After our telephone conversation I was able to pull Snowden's file and the amended label we were discussing (attempting to discuss on my end!). I see your point that the proposed label wording does not state the intent of use. Attached is proposed wording for each claim that would clarify the need for using SO2 on wine barrels and corks. Data to support these claims was submitted with the original amendment package. Please let me know if this wording helps to clarify the label's intent for these claims, or if you'd like the wording changed in any way.

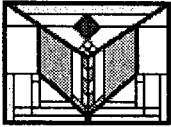
I will give you a call as soon as I hit send on this e-mail...

Terri Aal

AOL now offers free email to everyone. Find out more about what's free from AOL at AOL.com



. Fruit Doctor -new claims portion of label.doc



Tony Kish/DC/USEPA/US
09/10/2007 03:52 PM

To Lois Rossi/DC/USEPA/US@EPA
cc "Cynthia Giles-Parker" <giles-parker.cynthia@epa.gov>,
"Tony Kish" <Kish.Tony@epamail.epa.gov>, Mary
Waller/DC/USEPA/US@EPA, John
bcc

Subject Re: Sulfur Dioxide

Lois -- FB will complete this to count this FY. However, the RA finds that fumigation of empty wine barrels and corks falls under the existing tolerance so is it really a new food use, or is it a new non-food use? There is no rule, just a label to approve.

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
Lois Rossi/DC/USEPA/US

Lois Rossi/DC/USEPA/US
09/10/2007 03:15 PM

To Mary Waller/DC/USEPA/US@EPA, "Cynthia Giles-Parker"
<giles-parker.cynthia@epa.gov>, "Tony Kish"
<Kish.Tony@epamail.epa.gov>
cc
Subject Sulfur Dioxide

Jeff Herndon said that this new use could proceed. I would like this to be done for this FY - I don't think it needs an FR.

Thanks

Sent by EPA Wireless E-Mail Services.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER**

**PRESSURIZED LIQUID GAS
HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF
SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water or any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

**THE FRUIT DOCTOR
COMPRESSED SULFUR DIOXIDE**

ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide	100.0%
TOTAL	100.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO**
HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.
See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">- Move person to fresh air.- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.- DO NOT apply any chemicals or ointments/lotions to damaged skin.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">- DO NOT wear contact lenses when working with or around sulfur dioxide.- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.- DO NOT apply any chemical or ointment to the eyes.- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">- (LIQUID SULFUR DIOXIDE)- Call a poison control center or doctor immediately for treatment advice.- Have person sip a glass of water if able to swallow.- Do not induce vomiting.- Do not give anything by mouth to an unconscious person.

NOTES: • Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
• In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**SEE APPLICATION
MANUAL DESCRIBING USE
OF FRUIT DOCTOR SULFUR
DIOXIDE - THIS PRODUCT IS
ACCOMPANIED BY AN
APPROVED APPLICATION
MANUAL. READ AND
UNDERSTAND THE ENTIRE
LABELING (LABEL AND
APPLICATION MANUAL)
BEFORE USING THIS
PRODUCT. CONTACT
SNOWDEN ENTERPRISES,
INC. TO OBTAIN A
REPLACEMENT COPY OF
THE APPLICATION
MANUAL.**

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.
2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, to the extent consistent with applicable law, Snowden's liability is limited to replacement of product or refund of purchase price. In no event shall Snowden be liable for indirect or consequential damages.

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

EPA REG. NO. 11195-1
PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

EPA EST. NO. 11195-CA-1 or 2

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

EPA NOTE: Cylinder label (i.e. container label)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL.
READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL)
BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO
OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT

Sulfur Dioxide.....

TOTAL.....

BY WEIGHT

100.0%

100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See Additional Precautions in the Application Manual.

FIRST AID

If inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

If on skin or clothing

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If in eyes

- DO NOT wear contact lenses when working with or around sulfur dioxide
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If swallowed

- (LIQUID SULFUR DIOXIDE)
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting.
- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certifications.

THE FRUIT DOCTOR**COMPRESSED SULFUR DIOXIDE**

THIS PRODUCT IS ACCOMPANIED BY A COMPLETE LABEL AND APPLICATION MANUAL.
READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL)
BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO
OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT

Sulfur Dioxide.....

TOTAL.....

BY WEIGHT100.0%

100.0%

KEEP OUT OF REACH OF CHILDREN**DANGER – PELIGRO****HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.**

See Additional Precautions in the Application Manual.

FIRST AID**If inhaled**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

**If on skin
or clothing**

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If in eyes

- DO NOT wear contact lenses when working with or around sulfur dioxide
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

**If
swallowed**

- (LIQUID SULFUR DIOXIDE)
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting.
- Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS****PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID –
LIQUID CAUSES BURNS OF SKIN AND EYES.**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear long-sleeved shirt and long pants, and chemical resistant gloves and boots. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

Manufactured for: **Snowden Enterprises, Inc.**, P.O. Box 751, Fresno, California 93712

Net Contents: (See Attached Tag for Pounds Sulfur Dioxide Net Contents)

RESTRICTED USE PESTICIDE

Due to corrosive effects during inhalation and to eyes and skin.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

THE FRUIT DOCTOR

APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

DANGER – PELIGRO

PRESSURIZED LIQUID GAS KEEP OUT OF REACH OF CHILDREN

Hazardous vapor and liquid – Liquid causes burns of skin and eyes.

Fatal if inhaled in high concentrations. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. For handling activities in enclosed areas, use either a supplied-air respirator with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear a full-face shield. Causes skin burns. Do not get in eyes, on skin, or on clothing. Wear coveralls over long sleeved shirt and long pants, chemical resistant boots and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. DO NOT apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. DO NOT apply any chemical or ointment to the eyes. DO NOT wear contact lenses when working with or around sulfur dioxide. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements

for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period. It is recommended that any time SO₂ gassing is occurring, that the area be monitored for SO₂ levels at all times.

PERSONAL PROTECTIVE EQUIPMENT

Protective Clothing

Wear long-sleeved shirt and long pants, gloves and boots when handling this product. If braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body protective clothing impervious to sulfur dioxide, and gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

Respiratory Protection

If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube, Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator. No one should enter a high SO₂ concentration area using a short-term full-face respirator because these only have a limited capacity for protection. It is not possible for someone working in a high SO₂ concentration area to know when the limit of a full-face respirator has been reached.

POSTING OF FUMIGATED WAREHOUSE AREA

Before fumigation, the applicator must post markings at all entrances to the fumigated areas with signs bearing the following statements in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

POSTING SIGNS (FUMIGANT MARKING) FOR TRUCKS, VANS, AND RAILCARS

Proper fumigant markings must be prominently displayed on all trucks, vans or railcars that have been fumigated with SO₂ prior to transport. The fumigant markings must follow all current required Department of Transportation regulations. Fumigant marking must be displayed so that it can be seen by any person attempting to access the interior of the transport vehicle or freight container. The fumigant marking must be formatted as shown below:

The fumigant marking must consist of red letters on white background that is at least 30 cm (11.8 inches) wide and at least 25 cm (9.8 inches) high. The fumigant marking must read as follows:

<p>DANGER</p> <p>Insert skull and crossbones art</p> <p>THIS UNIT IS UNDER FUMIGATION WITH SULFUR DIOXIDE, LIQUEFIED APPLIED ON</p> <p>Date _____ Time _____</p> <p>DO NOT ENTER</p>
--

The fumigant marking must stay on the truck, van, or railcar until the fumigated container is unloaded and the transport vehicle or freight container has undergone sufficient aeration to assure that it does not pose an unreasonable risk to health and safety (below the threshold concentration of 2.0 ppm).

The applicator must show on the manifest accompanying the load that the trailer has been fumigated with SO₂. The statement on the manifest must show the following:

1. Trailer fumigated with SO₂.
2. The date and time of fumigation.
3. Name of fumigant used.

RE-ENTRY AFTER FUMIGATION

After fumigation, treated areas must be undisturbed until the level of sulfur dioxide is at or below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

STORAGE AND DISPOSAL, SPILL AND LEAK PROCEDURES

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use.

Pesticide Disposal – Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal - When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Do not use cylinders for any other purpose. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote airflow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by Botrytis cinerea. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow on a 7-10 day interval. For fruit being shipped to market soon after harvest, SO_2 fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO_2 through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO_2 saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficiency. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO_2 from the recirculating air to equal the rate of removal by direct venting.

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:

Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the bottle to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY – LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO_2 fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

SMALL CYLINDER

GRAPES

For post-harvest use only on grapes held in cold storage to suppress spread of grey mold caused by Botrytis cinerea.

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation can be applied in a truck or railcar if the grapes have been gassed three (3) or fewer times.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

For warehouse use, refer to Warehouse Storage section of this Application Manual.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc., system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize effects of non-public health fungi and/or bacteria prior to the introduction of grape juice for wine production.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels - Using Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work

area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production: fumigate the cork to reduce fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

Snowden/SO₂label/ 9-07



John Bazuin/DC/USEPA/US
08/24/2007 09:51 AM

To Richard Loranger/DC/USEPA/US
cc Cynthia Giles-Parker/DC/USEPA/US@EPA, George
Herndon/DC/USEPA/US@EPA, John
Redden/DC/USEPA/US@EPA, Tony
bcc
Subject Re: DRAFT Memorandum addressing cork and barrel use for
sulfur dioxide

John and Rick,

I think the changes Rick suggests are quite beneficial. (I had been mystified by "education tube", for example, and Rick's justification for why the residues from the new uses fit into the tolerance is very important, I feel.) Attached is a version of the document containing some other changes that I'd suggest considering. I turned change tracking off, by the way, and simply noted my suggestions in bold blue text, with strikethrough for suggested deletion of text and no strikethrough for suggested addition of text. In the memo the suggested changes are mostly to clarify the meaning of the text here and there and to make it flow a little better. In the label language there were still a couple of typos and the grammar is pretty bad in places, so I corrected those typos and made some grammatical changes that I think clarify the meaning (I didn't hit all of these, by the way).

Again, the changes are just suggestions.

John Bazuin



11195-1.ARIA risk assessment.draft.070822.with.HED.and.Bazuin.comments.doc

Richard Loranger/DC/USEPA/US



Richard
Loranger/DC/USEPA/US
08/23/2007 01:46 PM

To John Redden/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA, George
Herndon/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Tony
Kish/DC/USEPA/US@EPA, William
Cutchin/DC/USEPA/US@EPA
Subject Re: DRAFT Memorandum addressing cork and barrel use for
sulfur dioxide

John,

Here is the document incorporating Jeff's and my comments using track changes. Note that I also made some of the revisions suggested by Tony (e.g., "education" to "eduction"). Going online I found that you were correct about "Draeger" tubes (versus "Dreager"). It looks like it is derived from the German version "Dräger" with an umlaut above the "a" (if I remember my German correctly). Thanks for writing this document.

Rick



wine corks RL comments.doc
John Redden/DC/USEPA/US



John Redden/DC/USEPA/US

08/22/2007 04:11 PM

To George Herndon/DC/USEPA/US@EPA, Richard
Loranger/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Tony
Kish/DC/USEPA/US@EPA, William
Cutchin/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA

Subject DRAFT Memorandum addressing cork and barel use for
sulfur dioxide

Folks

Here's the "DRAFT" memo: [attachment "wine corks.doc" deleted by Richard Loranger/DC/USEPA/US]

One question to the illustrious chemists: In the label the Registrant uses the term "Dreager tubes." Should
it be Draeger tubes instead?

Thanks

John

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

DATE: **July 22 August 28**, 2007

MEMORANDUM

Name of Pesticide Product: The Fruit Doctor/Compressed Sulfur

Deleted: p

Dioxide

EPA Reg. No.: 11195-1

DP Barcode: D342914

Decision No.: D290220

PC Code: 077601 Sulfur Dioxide

SUBJECT: Sulfur dioxide: Application for addition **for of** use in cleaning **of** barrels
and fumigation **of** corks used in wine production

FROM: John Redden, M.S., Team Leader
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

THROUGH: George Herndon, **Deputy** Director
Health Effects Division (HED) (7509P)

Deleted: Associate

And

Richard Loranger, Ph.D., Senior Scientist

Deleted: k

Registration Action Branch **2**

Deleted: 3

Health Effects Division (HED) (7509P)

And

William Cutchin
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

TO: **Tony Kish**
John **B**azuin
Fungicide Branch
RD (7505P)

Deleted: u

Action:

This is a request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide to include the following uses: 1) ~~For use in~~ Cleaning of barrels used in wine production and 2) ~~the~~ fumigation of corks used in wine production.

Background:

On August 2, 2007 a meeting was held to discuss this action. The following people attended this meeting: Cynthia Giles-Parker (RD), George Herndon (HED), Richard Loranger (HED), John Bazuin (RD), Tony Kish (RD) and John Redden (RD).

As part of the discussion the Reregistration Eligibility Decision (RED) for Inorganic Sulfites was discussed (The RED was issued May 2007 with a comment period through July 23, 2007). The risk assessment in this RED was largely qualitative and ~~it was the meeting attendees~~ determined that the new uses ~~would will also be covered by~~ the RED.

Deleted: could be rolled into

George Herndon stated that these new uses could ~~possibly~~ be considered non-food ~~if appropriate residue data were provided. In the absence of such data, however, these are considered food uses requiring a tolerance. However,~~ George Herndon and Richard Loranger ~~then~~ determined that the empty barrels and cork use fits under the 10 ppm tolerance for grapes. This conclusion is based on the extensive dilution of any remaining residues in or on the barrel or cork by the large volume of wine. The tolerance on the grape RAC is expected to be significantly higher than residues in the wine (i.e., the processed commodity) stored in the treated barrels. A consensus was reached that this should be the way forward.

Conclusion:

ARIA ~~therefore~~ recommends that the request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide ~~for the following uses: 1)~~ for use in cleaning barrels used in wine production and ~~2) the~~ fumigation of corks used in wine production be granted. It has been determined that these two uses are supported by the 10 ppm tolerance for grapes.

Labeling:

The label will be edited as follows to address these new uses:

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION

Deleted: U

For wooden barrels used for wine aging:

1. ~~The insides of the~~ barrels should be rinsed ~~by with~~ a solvent selected by the

winery (e.g. soap, water, etc.) and air dried.

2. Gas barrels ~~use~~ **using** 600-1000 ppm SO₂. **Using Use a** Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing **the** bung from **a** barrel, **then** insert **the** SO₂ probe **into** the barrel and open **the value valve** for 2-3 seconds. **Now** close **the valve, and** extract the SO₂ probe and replace **the** bung. Insert **the** SO₂ probe into **the** next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

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NOTE TO USER: If **the a** liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

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The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated **d** at 165°F. Do not expose cylinders to a heat source, including hot water. **To do Doing** so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, **Dræger** tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

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FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production:

To fumigate cork bags, use 600-1000 ppm SO₂. **U**se a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, **then** fill the bag with corks, begin **the heat sealing process**, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated."


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Deleted: in

Deleted: d



Richard
Loranger/DC/USEPA/US
08/23/2007 01:46 PM

To John Redden/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA, George
Herndon/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Tony
bcc
Subject Re: DRAFT Memorandum addressing cork and barrel use for
sulfur dioxide 

John,

Here is the document incorporating Jeff's and my comments using track changes. Note that I also made some of the revisions suggested by Tony (e.g., "education" to "eduction"). Going online I found that you were correct about "Draeger" tubes (versus "Dreager"). It looks like it is derived from the German version "Dräger" with an umlaut above the "a" (if I remember my German correctly). Thanks for writing this document.

Rick



wine corks RL comments.doc
John Redden/DC/USEPA/US



John Redden/DC/USEPA/US
08/22/2007 04:11 PM

To George Herndon/DC/USEPA/US@EPA, Richard
Loranger/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Tony
Kish/DC/USEPA/US@EPA, William
Cutchin/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA
Subject DRAFT Memorandum addressing cork and barrel use for
sulfur dioxide

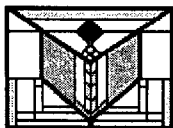
Folks

Here's the "DRAFT" memo: [attachment "wine corks.doc" deleted by Richard Loranger/DC/USEPA/US]

One question to the illustrious chemists: In the label the Registrant uses the term "Dreager tubes." Should it be Draeger tubes instead?

Thanks

John



Tony Kish/DC/USEPA/US
08/22/2007 06:02 PM

To John Redden/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA, George
Herndon/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Richard
bcc

Subject Comments -- Draft Memorandum addressing cork and barrel
use for sulfur dioxide

John -- a few minor changes in the draft RA and a few labeling questions that maybe you and John Bazuin can figure out;

1. Change UN to IN "FOR USE UN CLEANING BARRELS USED IN WINE PRODUCTION"

2. Change "education tube" to "eduction tube" globally.

3. In the statement "Gas barrels use 600-1000 ppm SO₂", it's not clear how does one know they've reached 600-1000 ppm SO₂ from a 18-45psi cylinder? Does the 2-3 second release time do it? No other label use indicates ppm, and the Draeger tubes are for the work area air, not the barrel air.

4. I'm not clear on the treatment process and the required efficacy contact time.

Is the efficacy contact time 30 days, or something less because as I read it, one cleans barrel, dries barrel, removes small bung (plug), pressurizes w/SO₂ for 2-3 seconds, replaces small bung (plug), and then does the next barrel as if the replaced bung holds in some residual SO₂?

If the bung is immediately replaced after gassing, how does offgassing occur, or maybe minimal offgassing occurs until actual filling with wine (after 30 days) and that's where the residuals come from?

5. For corks, change "heat dealing process" to "heat sealing process".

Thanks
Tony

John Redden/DC/USEPA/US



John Redden/DC/USEPA/US
08/22/2007 04:11 PM

To George Herndon/DC/USEPA/US@EPA, Richard
Loranger/DC/USEPA/US@EPA, John
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Cutchin/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA

Subject DRAFT Memorandum addressing cork and barrel use for
sulfur dioxide

Folks



Here's the "DRAFT" memo: wine corks.doc

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Thanks

John



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08/22/2007 04:11 PM

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Subject DRAFT Memorandum addressing cork and barel use for
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it be Draeger tubes instead?

Thanks

John

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

DATE: July 22, 2007

MEMORANDUM

Name of Pesticide Product: The Fruit Doctor/Compressed Sulfur Dioxide Deleted: p

EPA Reg. No.: 11195-1
DP Barcode: D342914
Decision No.: D290220
PC Code: 077601 Sulfur Dioxide

SUBJECT: Sulfur dioxide: Application for addition for use in cleaning barrels and fumigation corks used in wine production

FROM: John Redden, M.S., Team Leader
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

THROUGH: George Herndon, Deputy Director Deleted: Associate
Health Effects Division (HED) (7509P)

And
Richard Loranger, Ph.D., Senior Scientist Deleted: k
Registration Action Branch 2 Deleted: 3
Health Effects Division (HED) (7509P)

And
William Cutchin
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

TO: John Bazuin Deleted: u
Fungicide Branch
RD (7505P)

Action:

This is a request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide to include the following uses: 1) For use in cleaning barrels used in wine production and 2) the fumigation of corks used in wine production.

Background:

On August 2, 2007 a meeting was held to discuss this action. The following attended this meeting; Cynthia Giles-Parker (RD), George Herndon (HED), Richard Loranger (HED), John Bazuin (RD), Tony Kish (RD) and John Redden (RD).

As part of the discussion the Reregistration Eligibility Decision (RED) for Inorganic Sulfites was discussed (The RED was issued May 2007 with a comment period through July 23, 2007). The risk assessment in this RED was largely qualitative and it was determined that the new uses would be covered by the RED.

Deleted: could be rolled into

George Herndon stated that these new uses could possibly be considered non-food if appropriate residue data were provided. In the absence of such data, these are considered food uses requiring a tolerance. However, George Herndon and Richard Loranger determined that the empty barrels and cork use fits under the 10 ppm tolerance for grapes. This conclusion is based on the extensive dilution of any remaining residues in or on the barrel or cork by the large volume of wine. The tolerance on the grape RAC is expected to be significantly higher than residues in the wine (i.e., the processed commodity) stored in the treated barrels. A consensus was reached that this should be the way forward.

Conclusion:

ARIA recommends that the request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide for the following uses: 1) for use in cleaning barrels used in wine production and 2) the fumigation of corks used in wine production be granted. It has been determined that these two uses are supported by the 10 ppm tolerance for grapes.

Labeling:

The label will be edited as follows to address these new uses:

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION

Deleted: U

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels use 600-1000 ppm SO₂. Using Gas Cylinder only (no education

Deleted: a

tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open valve for 2-3 seconds. Close valve and extract SO₂ probe and replace bung. Insert SO₂ probe into next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

Deleted: u

Deleted: u

NOTE TO USER: If the liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

Deleted: a

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. To do so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

Deleted: c

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production:

To fumigate cork bags, use 600-1000 ppm SO₂, use a Gas Cylinder only (no education tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated."

Deleted: a

Deleted: in

Deleted: d



John Redden/DC/USEPA/US
08/23/2007 07:09 AM

To Tony Kish/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA, George
Herndon/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Richard
bcc

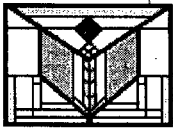
Subject Re: Comments -- Draft Memorandum addressing cork and
barel use for sulfur dioxide

Tony

This is the Registrant's language as written in the label. I'll recommend your suggested changes. As to your questions after item 4, you will have to ask the Registrant.

Regards

John
Tony Kish/DC/USEPA/US



Tony Kish/DC/USEPA/US
08/22/2007 06:02 PM

To John Redden/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA, George
Herndon/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Richard
Loranger/DC/USEPA/US@EPA, William
Cutchin/DC/USEPA/US@EPA
Subject Comments -- Draft Memorandum addressing cork and barel
use for sulfur dioxide

John -- a few minor changes in the draft RA and a few labeling questions that maybe you and John Bazuin can figure out;

1. Change UN to IN "FOR USE UN CLEANING BARRELS USED IN WINE PRODUCTION"

2. Change "education tube" to "eduction tube" globally.

3. In the statement "Gas barrels use 600-1000 ppm SO₂", it's not clear how does one know they've reached 600-1000 ppm SO₂ from a 18-45psi cylinder? Does the 2-3 second release time do it? No other label use indicates ppm, and the Draeger tubes are for the work area air, not the barrel air.

4. I'm not clear on the treatment process and the required efficacy contact time.

Is the efficacy contact time 30 days, or something less because as I read it, one cleans barrel, dries barrel, removes small bung (plug), pressurizes w/SO₂ for 2-3 seconds, replaces small bung (plug), and then does the next barrel as if the replaced bung holds in some residual SO₂?

If the bung is immediately replaced after gassing, how does offgassing occur, or maybe minimal offgassing occurs until actual filling with wine (after 30 days) and that's where the residuals come from?

5. For corks, change "heat dealing process" to "heat sealing process".

Thanks
Tony

John Redden/DC/USEPA/US



John Redden/DC/USEPA/US

08/22/2007 04:11 PM

To George Herndon/DC/USEPA/US@EPA, Richard
Loranger/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Tony
Kish/DC/USEPA/US@EPA, William
Cutchin/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA
Subject DRAFT Memorandum addressing cork and barel use for
sulfur dioxide

Folks



Here's the "DRAFT" memo: wine corks.doc

One question to the illustrious chemists: In the label the Registrant uses the term "Dreager tubes." Should it be Draeger tubes instead?

Thanks

John

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

DATE: July 22, 2007

MEMORANDUM

Name of Pesticide Product: The Fruit Doctor/Compressed Sulfur
Dioxide
EPA Reg. No.: 11195-1
DP Barcode: D342914
Decision No.: D290220
PC Code: 077601 Sulfur Dioxide

SUBJECT: Sulfur dioxide: Application for addition ^{of} for use in cleaning barrels and
fumigation corks used in wine production

FROM: John Redden, M.S., Team Leader
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

THROUGH: George Herndon, Associate Director
Health Effects Division (HED) (7509P)

And
Rick Loranger, Ph.D., Senior Scientist
Registration Action Branch 3
Health Effects Division (HED) (7509P)

And

William Cutchin
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

TO: John Buzuin
Fungicide Branch
RD (7505P)

Action:

This is a request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide to include the following uses: 1) For use in cleaning barrels used in wine production and 2) the fumigation of corks used in wine production.

Background:

On August 2, 2007 a meeting was held to discuss this action. The following attended this meeting; Cynthia Giles-Parker (RD), George Herndon (HED), Richard Loranger (HED), John Bazuin (RD), Tony Kish (RD) and John Redden (RD).

As part of the discussion the Reregistration Eligibility Decision (RED) for Inorganic Sulfites was discussed (The RED was issued May 2007 with a comment period through July 23 2007). The risk assessment in this RED was largely qualitative and it was determined that the new uses could be rolled into the RED.

George Herndon stated that these new uses could possibly be considered non-food. However George Herndon and Richard Loranger determined that the empty barrels and cork use fits under the 10 ppm tolerance for grapes. A consensus was reached that this should be the way forward.

Conclusion:

ARIA recommends that the request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide for the following uses: 1) for use in cleaning barrels used in wine production and 2) the fumigation of corks used in wine production be granted. It has been determined that these two uses are supported by the 10 ppm tolerance for grapes.

Labeling:

The label will be edited as follows to address these new uses:

FOR USE UN CLEANING BARRELS USED IN WINE PRODUCTION

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels use ⁱⁿ 600-1000 ppm SO₂. Using Gas Cylinder only (no education tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe unto the barrel and open valve for 2-3 seconds. Close ~~valve~~ and extract SO₂ probe and replace

valve

bung. Insert SO₂ probe into next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER; If the liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rate at 165°F. Do not expose cylinders to a heat source, including hot water. To do so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, ~~Draeger~~ ^{Draeger} tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production:

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

DATE: July 22, 2007

MEMORANDUM

Name of Pesticide Product: The Fruit Doctor/Compressed Sulfur
Dioxide
EPA Reg. No.: 11195-1
DP Barcode: D342914
Decision No.: D290220
PC Code: 077601 Sulfur Dioxide

SUBJECT: Sulfur dioxide: Application for addition for use in cleaning barrels and
fumigation corks used in wine production

FROM: John Redden, M.S., Team Leader
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

THROUGH: George Herndon, Associate Director
Health Effects Division (HED) (7509P)

And
Rick Loranger, Ph.D., Senior Scientist
Registration Action Branch 3
Health Effects Division (HED) (7509P)

And

William Cutchin
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

TO: John Buzuin
Fungicide Branch
RD (7505P)

Action:

This is a request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide to include the following uses: 1) For use in cleaning barrels used in wine production and 2) the fumigation of corks used in wine production.

Background:

On August 2, 2007 a meeting was held to discuss this action. The following attended this meeting; Cynthia Giles-Parker (RD), George Herndon (HED), Richard Loranger (HED), John Bazuin (RD), Tony Kish (RD) and John Redden (RD).

As part of the discussion the Reregistration Eligibility Decision (RED) for Inorganic Sulfites was discussed (The RED was issue May 2007 with a comment period through July 23 2007). The risk assessment in this RED was largely qualitative and it was determined that the new uses could be rolled into the RED.

George Herndon stated that these new uses could possibly be considered non-food. However George Herndon and Richard Loranger determined that the empty barrels and cork use fits under the 10 ppm tolerance for grapes. A consensus was reached that this should be the way forward.

Conclusion:

ARIA recommends that the request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide for the following uses: 1) for use in cleaning barrels used in wine production and 2) the fumigation of corks used in wine production be granted. It has been determined that these two uses are supported by the 10 ppm tolerance for grapes.

Labeling:

The label will be edited as follows to address these new uses:

FOR USE UN CLEANING BARRELS USED IN WINE PRODUCTION

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels use 600-1000 ppm SO₂. Using Gas Cylinder only (no education tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe unto the barrel and open valve for 2-3 seconds. Close value and extract SO₂ probe and replace

bung. Insert SO₂ probe into next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER; If the liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rate at 165°F. Do not expose cylinders to a heat source, including hot water. To do so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Dreager tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production:

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

DATE: July 28, 2007

MEMORANDUM

SUBJECT: Sulfur Dioxide: Application for addition for use in cleaning barrels and fumigation corks used in wine production

Name of Pesticide Product: The Fruit Doctor/Compressed Sulfur
Dioxide
EPA Reg. No.: 11195-1
DP No.: 342914
Decision No.: D290220
PC Code: 077601

FROM: John Redden, M.S., Team Leader *W. Cutchin for*
Alternative Risk Integration Assessment (ARIA)
Risk Integration Minor Use Emergency Response Branch (RIMUERB)
Registration Division (RD) (7505P)

THROUGH: George Herndon, Deputy Director *G. Jeffrey Herndon*
Health Effects Division (HED) (7509P)

And
Richard Loranger, Ph.D., Senior Scientist *R. Loranger*
Registration Action Branch 3 (RAB3)
HED (7509P)

And

William Cutchin *William Cutchin*
ARIA
RIMUERB
RD (7505P)

TO: Tony Kish
John Bazuin
FB
RD (7505P)

Action:

This is a request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide to include the following uses: 1) cleaning barrels used in wine production and 2) fumigation of corks used in wine production.

Background:

On August 2, 2007 a meeting was held to discuss this action. The following attended this meeting; Cynthia Giles-Parker (RD), George Herndon (HED), Richard Loranger (HED), John Bazuin (RD), Tony Kish (RD) and John Redden (RD).

As part of the discussion the Reregistration Eligibility Decision (RED) for Inorganic Sulfites was discussed (The RED was issued May 2007 with a comment period through July 23 2007). The risk assessment in this RED was largely qualitative and the meeting attendees determined that the new uses will also be covered by the RED.

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Conclusion:

ARIA recommends that the request to amend EPA Reg. No. 11195-1, The Fruit Doctor/Compressed Sulfur Dioxide for use in cleaning barrels used in wine production and fumigation of corks used in wine production be granted. It has been determined that these two uses are supported by the 10 ppm tolerance for grapes.

Labeling:

The label will be edited as follows to address these new uses:

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed with a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels using 600-1000 ppm SO₂. Use a Gas Cylinder only (no education

tube) and a barrel gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO₂ probe and replace bung. Insert the SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If a liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

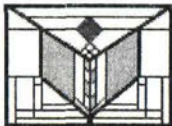
The SO₂ cylinders have fusible plugs (heat sensitive plugs) rate at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

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Tony Kish/DC/USEPA/US
07/09/2007 04:37 PM

To aalterri@aol.com
cc John Bazuin/DC/USEPA/US@EPA
bcc
Subject Re: The Fruit Doctor - Snowden Enterprises, Inc.

Terri --

1. The application to grapes being crushed or processed is FDA and must be deleted.
2. The application to fumigate corks and barrels is EPA jurisdiction and the label claim for these uses will need to specify either that it's "only for control of non-public health organisms" or "for control of spoilage organisms". Our science review team is still assessing these two EPA uses. Your PRIA due date is 10/22/07.
3. Don't send a revised label yet as there could be additional changes from John Bazuin.

Thanks,
Tony Kish, Product Manager,
Team 22, Fungicide Branch;
Registration Division
703-308-9443
aalterri@aol.com



aalterri@aol.com
07/09/2007 03:03 PM

To Tony Kish/DC/USEPA/US@EPA
cc
Subject The Fruit Doctor - Snowden Enterprises, Inc.

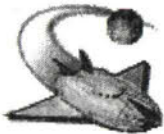
Dear Mr. Kish:

When you have a moment, will you give me a brief description of how your meeting regarding Snowden Ent.'s Fruit Doctor label went? You mentioned that EPA has determined one of the new Fruit Doctor claims had been deemed under FDA regulation. Was a determination made for the other two claims? Snowden is thrilled to have EPA working on their pending actions. Please let me know if anything is needed from our end.

Thank you,

Terri Siemer-Aal
Regulatory Consultant
Associate, Siemer & Associates, Inc.
Regulatory Agent for Snowden Enterprises

AOL now offers free email to everyone. Find out more about what's free from AOL at AOL.com



John Redden/DC/USEPA/US
07/03/2007 02:26 PM

To George Herndon/DC/USEPA/US@EPA, Tony
Kish/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA, Cynthia

cc

bcc

Subject Inorganic Sulfites RED

Jeff,



Here it is: inorganicsulfites.pdf

Thanks

John



Reregistration Eligibility Decision – Inorganic Sulfites

May 2007

Reregistration Eligibility Decision

Inorganic Sulfites

**Special Review and Reregistration Division
Office of Pesticide Programs
U.S. Environmental Protection Agency
1801 South Bell Street
Arlington, VA 22202**

Introduction

The Environmental Protection Agency (EPA) has completed its Reregistration Eligibility Decision (RED) for the inorganic sulfites case, which includes the chemicals sulfur dioxide and sodium metabisulfite. This assessment provides information to support the issuance of a Reregistration Eligibility Decision for inorganic sulfites. EPA's pesticide reregistration process provides for the review of older pesticides (those initially registered prior to November 1984) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to ensure that they meet current scientific and regulatory standards.

In this document, EPA presents the results of its review of the potential human health effects of dietary, drinking water and occupational/bystander exposure to inorganic sulfites, as well as its ecological risk findings. Evaluations performed by the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), and the Agency for Toxic Substances and Disease Registry (ATSDR) were relied upon for this assessment, in addition to peer-reviewed evaluations performed by the Cosmetic Ingredient Review (CIR), the Organization for Economic Cooperation and Development-Screening Information Data Set (OECD-SIDS) and from other open literature sources. Based on this assessment, the Agency has determined that products containing sulfur dioxide or sodium metabisulfite are eligible for reregistration provided the necessary label changes are made. As a result of this assessment, one tolerance has been reassessed.

I. Use Information

The inorganic sulfites reregistration case includes the chemicals sulfur dioxide (CAS No. 7446-09-5) and sodium metabisulfite (CAS No. 7681-57-4). As active ingredients, these chemicals are fungicides typically used to treat for *Botrytis cinerea*, the fungus which causes bunch rot, or gray mold disease on grapes. The sulfur dioxide products are formulated as a compressed liquid that converts to a gas upon release. These products are used in cold-storage warehouses, trucks, vans and train cars for post-harvest grape fumigation. In addition to the fungicidal use against *Botrytis cinerea*, sulfur dioxide is also used in combination with carbon dioxide to treat for black widow spider on grapes in warehouse settings. The black widow spider treatment is not included on any sulfur dioxide product labels, as this use is permitted solely under a FIFRA 24(c) carbon dioxide registration (CA920007). The sodium metabisulfite products are composed of the anhydrous, solid active ingredient contained in semi-sealed pads which are added to containers holding grapes prior to shipping. The pads absorb moisture generated by grapes, and release low levels of sulfur dioxide in the range of 1-5 ppm.

End-use inorganic sulfite products contain sulfur dioxide at 99.9 to 100%, and sodium metabisulfite at 37.5 to 98.5%. The Agency currently has six of the ten sodium metabisulfite products designated as containing sodium bisulfite (078201) as the active ingredient. As of the publication of this RED, the Agency will transfer these registrations to the sodium metabisulfite designation (111409). The tolerance being reassessed in this document, with the respective citation in the Code of Federal Regulations (CFR), and the use pattern as an active ingredient is

listed in Table 1.

Table 1. Tolerance Being Reassessed for Inorganic Sulfites					
Tolerance Expression	CAS No.	40 CFR	PC Code	Limit	Use Pattern
Active Ingredient					
Sulfur dioxide (as sulfite residues)	7446-09-5	§180.444	77601	10 ppm	grape, postharvest/used as fungicide and preservative
Sodium metabisulfite (as sulfite residues)	7681-57-4	§180.444	111409	10 ppm	grape, postharvest/used as fungicide and preservative

Both sulfur dioxide (21CFR §182.3862) and sodium metabisulfite (21CFR §182.3766) are listed as GRAS (Generally Recognized as Safe) by the FDA (Food and Drug Administration) as preservatives in certain foods¹. Sodium metabisulfite is also used up to a concentration of 1% as an antioxidant in hair care products and as a reducing agent in cosmetic formulations (CIR 2003). Sources of sulfur dioxide include the combustion of fossil fuels, smelting of sulfide ores, volcanic emissions, and other natural sources. Sulfur dioxide is also used to manufacture hydro-sulfites, to bleach wood pulp and paper, to process, disinfect, and bleach food, for waste and water treatment, in metal and ore refining, and in oil refining (ATSDR-MMG 2004).

II. Physical/Chemical Properties

The physical and chemical properties of the inorganic sulfites are provided in Table 2.

Table 2. Physical/Chemical Properties of Inorganic Sulfites				
	Sulfur Dioxide	References	Sodium Metabisulfite	References
Molecular weight	64.06	ATSDR, 1998a (*NIOSH, 1994)	190.109	HSDB, 2005
Color/Form	colorless		white crystals or powder	
Odor	strong odor; suffocating		slight odor of sulfur dioxide	
Melting point	-72.7°C		150° C	OECD, 2001
Boiling point	-10° C		Decomposes	
Density	2.927 g/L (gas) 1.434 g/L (liquid)		1.4	HSDB, 2005

22.8 g/100 mL (water at 0° C)

54,000 mg/L water @ 20° C

¹ Sodium metabisulfite and sulfur dioxide are GRAS when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B1; on fruits or vegetables intended to be served raw to consumers or sold raw to consumers; or to be presented to consumers as fresh.

Table 2. Physical/Chemical Properties of Inorganic Sulfites				
	Sulfur Dioxide	References	Sodium Metabisulfite	References
Solubilities	C)* 11.3 g/100 mL (water at 20° C) 0.58 g/100 mL (water at 90° C)		100° C	
Vapor Pressure	3000 mm Hg at 20° C		NIOSH, 1994	Not available
Relative vapor density	2.25 (air = 1)			
Relative density	1.4 at -10° C (water = 1)			
Specific gravity	2.26	MSDS, 1996		

III. Hazard Assessment

A. Acute Toxicity

Sufficient toxicity information is available for both sulfur dioxide and sodium metabisulfite from publicly available sources.

Sodium Metabisulfite

Table 3. Acute Toxicity Data for Sodium Metabisulfite				
Study Type	Species	Lethal Dose (LD ₅₀) or Lethal Concentration (LC ₅₀)	Toxicity Category ¹	Reference
Acute Oral	rat	LD ₅₀ = 1540 mg/kg, death observed ≥1250 mg/kg LD ₅₀ = 1131 mg/kg	III	TOXNET, 2005 OECD, 2001
Acute Dermal	rat	LD ₅₀ > 2000 mg/kg	III	TOXNET, 2005
Acute Inhalation	Not Available			
Dermal Sensitization	guinea pig	Non-sensitizer	----	OECD, 2001
Skin and Eye Irritation	rabbit	Not irritating to the skin; Irritating to the eyes	Not provided	OECD, 2001

¹ The toxicity category ratings were not provided by OECD.

At high oral doses (> 1% or 10,000 ppm in the diet), effects seen in rats were local irritation, including inflammatory changes and hyperplasia in the stomach (WHO, 1999). Although dermal toxicity studies performed with sodium metabisulfite in laboratory animals have not been submitted to the Agency, a report by the Cosmetic Ingredient Review Committee (CIR, 2003) indicates that dermal penetration is unlikely due to the highly charged nature of sulfites. Cosmetic products containing sodium metabisulfite range from shampoos and hair coloring products, to eye and skin lotions, and makeup foundations. Sodium metabisulfite was not

sensitizing in the standard skin sensitization test in the guinea pig.

Sulfur Dioxide:

Table 4. Acute Toxicity Data for Sulfur Dioxide				
Study Type	Species	Lethal Dose (LD ₅₀) or Lethal Concentration (LC ₅₀) Results	Toxicity Category ¹	Reference
Acute Oral	Not Available			
Acute Dermal	Not Available			
Acute Inhalation	guinea pig	Lowest published LC: 1039 ppm/24 hr (2.7 mg/L/24 hr)	IV	NIOSH, 2004
	guinea pig	LC ₅₀ = 1000 ppm/20 hr; 130 ppm/154 hr = 2620 mg/m ³ /20hr or 2.6 mg/L	IV	HSDB, 2005
	mouse	LC ₅₀ : 3000ppm/30 min (7.9 mg/L/30min)	IV	NIOSH, 2004
	mouse	LC ₅₀ = 150 ppm/847 hr; 1000 ppm/4 hr (2.6 mg/L)	IV	HSDB, 2005
	rat	Lethal concentration (LC ₅₀): 2520 ppm/1 hr or 1.65 mg/L; 2168 mg/m ³ ; 20 mg/m ³ /5 hr; 30 mg/m ³	III	NIOSH, 2004
Dermal sensitization	Not Available			

¹ The toxicity category ratings were not provided by NIOSH.

B. Reproduction/Developmental Toxicity/Endocrine Disruption:

No evidence of reproductive toxicity was observed in rats exposed orally to 942 mg/kg bw/day of sodium metabisulfite (2% in the diet) in a diet supplemented with thiamine (OECD 2001). Developmental studies reported by the CIR 2003 indicate sodium metabisulfite produced no adverse findings, either maternal or fetal, in mice up to 160 mg/kg in a water solution, in rats up to 110 mg/kg in the diet, in hamsters up to 120 mg/kg in the diet, or in rabbits up to 123 mg/kg in the diet. These results are supported by developmental information reported by WHO (1999) in which no effects were observed on implantation, or on maternal or fetal survival in sodium metabisulfite doses of up to 150, 110 and 120 mg/kg bw in mice, rats, and hamsters, respectively (WHO Series 18). Reproductive effects were not observed in rats exposed to 5-30 ppm sulfur dioxide for a period from 9 days prior to mating until 12-14 days of pregnancy; or in mice exposed to 25 ppm sulfur dioxide 7 hours/day on gestation days 6-15; or in rabbits exposed to 70 ppm sulfur dioxide 7 hours/day on gestation days 6-18 (ATSDR, 1998a).

C. Carcinogenicity:

Sulfur dioxide and sodium metabisulfite are currently not classifiable (Group 3) as to their carcinogenicity to humans (IARC 1992). As for laboratory animals, there was limited evidence for the carcinogenicity to sulfur dioxide, based on inhalation studies reviewed by the IARC,

which indicated an increased incidence of lung tumors in female mice after exposure to sulfur dioxide. However, the concentrations of sulfur dioxide evaluated in these inhalation studies were not reported. Conclusions of the OECD SIDS report indicated 2% sodium metabisulfite via feed (20,000 ppm or 1,000 mg/kg/day) for 104 weeks was not carcinogenic in Wistar rats.

D. Genotoxicity/Mutagenicity:

Sodium metabisulfite was negative in an Ames/microsome assay (SRI International 1978b as cited by CIR 2003). Negative results were also reported for a host-mediated assay using mice to test mutagenicity against bacteria and yeast, in a cytogenetic assay using rats (Litton Bionetics 1972 as cited in CIR 2003), and a cytogenetic assay using sulfite oxidase-deficient hamsters and mice (Renner and Wever 1983 as cited in CIR 2003). Sodium metabisulfite was negative in one dominant lethal assay using rats while another study indicated further testing was needed (CIR 2003). However, genetic toxicity studies summarized by the OECD 2001 indicate sodium metabisulfite is equivocal in *in vitro* testing, but is not genotoxic in the *in vivo* testing.

E. Special Considerations for Infants and Children

There is sufficient toxicological information for sulfur dioxide and sodium metabisulfite to address FQPA considerations. The available information indicates that there is no evidence of increased quantitative or qualitative susceptibility of the offspring after *in utero* or post-natal exposure. Based on this information, there is no concern, at this time, for increased sensitivity to infants and children to sulfur dioxide and sodium metabisulfite when used on postharvest grapes.

F. Incident Data

In evaluating incidents to humans from sulfur dioxide and sodium metabisulfite exposure, the Agency evaluated data from the National Pesticide Information Center, the National Institute of Occupational Safety and Health (NIOSH), National Poison Control Centers, the California Department of Pesticide Regulation (CDPR), and the Agency's Incident Data System. The CDPR sulfur dioxide search identified 87 incident reviews from 1982 through 2003, many of which resulted from non-pesticidal uses. The NIOSH system search indicated that 19 incidents were reported involving sulfur dioxide from 1998 through 2003. Most of these cases involved effects such as chest pains, dizziness, numb hands, teary eyes, blurred vision, itching, and rashes. A 1991 report from the CDPR system also identified a case involving a delivery worker developing an asthmatic response following exposure to sulfur dioxide drift from a nearby fumigation facility. No incidents were reported for sodium metabisulfite; however, sodium bisulfite was implicated in the deaths of three workers using sodium bisulfite with a non-pesticidal use pattern.

IV. Occupational Risk Assessment

Regulatory exposure levels for inhalation exposure to sulfur dioxide include the OSHA PEL, NIOSH IDLH, and AIHA ERPG-1. The OSHA PEL (permissible exposure limit) is set at 5 ppm and is based on a time weighted average over an 8 hour workshift. The NIOSH IDLH

(immediately dangerous to life or health) is 100 ppm and the AIHA ERPG-1 is 0.3 ppm. The AIHA (American Industrial Hygiene Association) ERPG-1 is the maximum airborne concentrations below which it is believed that nearly all persons could be exposed for up to 1 hour without experiencing other than mild transient adverse health effects or perceiving a clearly defined, objectionable odor.

Sodium Metabisulfite

Products which contain sodium metabisulfite as the active ingredient are comprised of the solid, anhydrous active ingredient contained in semi-sealed pads, which are placed in containers holding grapes for shipping and storage. In each crate the sodium metabisulfite pads are separated from the grapes by a layer of tissue paper and a layer of kraft paper, and then the entire contents are wrapped in a porous polyethylene liner bag before the crate is closed. As the pads absorb ambient moisture, they release sulfur dioxide to a level of 1-5 ppm within the crate.

Since

the crates are partially open on the sides and top, the free exchange of low levels of sulfur dioxide with the surrounding air occurs continuously. Grapes are usually kept in these containers for 4-6 weeks before arrival at retail establishments. Once the grapes arrive for retail sale, the pads are removed from the crates and discarded. The low level of sulfur dioxide present in the crates or released to the surrounding environment is not expected to result in an occupational inhalation exposure of concern, as any exposure is expected to be of short duration and at or below the 8 hour OSHA PEL. Furthermore, since the sodium metabisulfite is contained in sealed pads, the likelihood of either oral or dermal exposure to the solid is considered minimal, providing the pads stay intact.

Pad disposal directions vary among the product labels; therefore, the Agency has determined that standardization of the labeling on the pad itself, is necessary. This labeling will include revised handling and disposal statements, in addition to a statement for asthmatics and sulfite sensitive individuals which identifies the presence of sulfites in these products. These label statements are detailed in Section XIII of this document. Based on the product use patterns, the low levels of sulfur dioxide released and the additional label requirements included in this document, the Agency expects occupational exposures to sodium metabisulfite to be below levels of concern.

Sulfur Dioxide

Products which contain sulfur dioxide as the active ingredient are formulated as a liquid under pressure which forms a gas upon release for grape fumigation. These products are stored in steel cylinders and applied to the treatment area via a hose system with a detector tube at a maximum rate of 1% concentration (based on measured volume of the fumigation chamber) for the initial fumigation, and up to 0.5% gas concentration for maintenance fumigations. Grapes are fumigated on a 7-10 day interval, and may be treated up to 20 times. Fumigation may occur in various types of cold-storage warehouses, or in truck trailers, vans and railcars.

Current sulfur dioxide end-use product labels require various levels of personal protective

equipment (PPE) during application and while checking hose connections. Workers must use sulfur dioxide detection devices (Draeger handpumps, Sensidyne or Kitagawa syringe samplers) to monitor the concentration in the fumigation area. If concentrations exceed 2.0 ppm in the fumigation area, the use of a NIOSH/MSHA approved respirator is required for "short exposures of limited duration." Labels also require a self-contained breathing apparatus (SCBA) or combination air-supplied respirator/SCBA for exposures to unknown concentrations, re-entry into a treated area with concentrations in excess of 2.0 ppm, and for emergencies. Other PPE requirements on current labels include protective clothing, gloves and boots impervious to sulfur dioxide, in addition to eye protection. These PPE requirements, as well as the respirator requirements, however, are inconsistent among product labels. Respirator requirements are also not clear regarding when a standard respirator (with an organic-vapor-removing cartridge) is acceptable or when a SCBA respirator is required. In order to clarify when SCBA respiratory protection is necessary and to address other PPE inconsistencies, the Agency has developed standard personal protective equipment (PPE) label requirements as stated in Section XIII of this document.

The Agency believes that the current PPE requirements with the additional labeling language required in this reregistration decision are adequate to ensure that workers are not exposed to sulfur dioxide levels of concern.

V. Bystander Inhalation Risk Assessment

Several regulatory endpoints and standards for ambient air concentrations of sulfur dioxide have been established at the state, Federal and international levels (see Table 5). The endpoint selected by the Agency for the bystander inhalation risk assessment is 0.25 ppm sulfur dioxide, with a 1-hour exposure duration. The 0.25 ppm concentration is based on an ambient air quality standard set by the California Air Resources Board. This endpoint is deemed most applicable to this exposure scenario, as it is based on effects of concern for bystanders (such as bronchoconstriction, shortness of breath, wheezing, and chest tightness during physical activity in persons with asthma), and is recognized by the State in which nearly all grape treatments occur. Further, considering the 15-30 minute aeration period used with the grape treatment, an endpoint based on an exposure duration of 1-hour is considered appropriate. The following table lists additional regulatory and guideline concentrations for sulfur dioxide in ambient air.

Table 5. Sulfur Dioxide Air Concentrations used for Regulatory/Guideline Purposes		
Exposure Limit	Agency/Group	Regulatory/Guideline Level (ppm)
1-hour	WHO	0.13
	California Air Resources Board	0.25
	AIHA (ERPG-1)	0.3
	State of Washington	0.25
	State of North Dakota	0.27
	State of Montana	0.5
3-hour	US EPA	0.5
	State of Florida	0.5

	State of Maine	0.4
	State of New Mexico	0.5
	State of New York	0.25
	State of Oregon	0.02

Based on the Probabilistic Exposure and Risk Model for Fumigants, version 2.1.1 (PERFUM2) and available incident data, the Agency has concerns for bystander exposure during grape fumigations which involve the release of high levels of sulfur dioxide during aeration. For *Botrytis cinerea* treatments, a practice known as "total utilization" is almost exclusively employed. Total utilization involves circulating the sulfur dioxide gas (typically 1000 to 2500 ppm) within the fumigation chamber until it is almost completely absorbed into the grapes, packaging material and any ambient moisture. As a result, only very low concentrations (i.e., less than 30 ppm) of sulfur dioxide are typically released from the ventilation stack during the aeration phase. However, current product labels do not limit sulfur dioxide release concentrations for this treatment; therefore if total utilization is not employed and much higher levels of sulfur dioxide are vented to the atmosphere, bystander exposure is a concern. To address this concern, the Agency is establishing a maximum release concentration for *Botrytis cinerea* warehouse treatments of 30 ppm, and truck/trailer treatments of 2 ppm. The disparity between these two release concentrations is based on the fact that the release of treated air following warehouse fumigation is performed at a flow rate of 2700 to 8100 ft³/min and at a typical height of 15 feet above ground level, thereby further reducing the potential for bystander exposure. Based on the results of the PERFUM2 model, this 30 ppm release concentration level is expected to limit bystander exposure potential with this use to sulfur dioxide concentrations at or below 0.25 ppm. This bystander exposure scenario is considered "worst-case," in that it assumes the ventilation stack is at the edge of the treatment warehouse, and the warehouse is in close proximity to the fumigation facility property line.

Treatment for black widow spider, however, is performed at a much higher concentration of sulfur dioxide (up to 10,000 ppm) than is used for *Botrytis cinerea* treatments. Further, due to the potential for damaging the fruit, these high concentrations may not be held in contact with the grapes for more than approximately 30 minutes; thus total utilization is not feasible. As a result, much higher sulfur dioxide concentrations are released during aeration for treatment of black widow spider; therefore, the Agency has bystander exposure concerns for this use. To address bystander concerns during black widow spider treatment, the Agency is also placing a limit of 30 ppm on the sulfur dioxide release concentration during the aeration phase of black widow spider treatment. As stated above, based on the results of the PERFUM2 model, this release restriction is expected to limit bystander exposure potential with this use to sulfur dioxide concentrations at or below 0.25 ppm. The Agency has been working with the California Table Grape Commission (CTGC) and the California Grape and Tree Fruit League (CGTFL) to determine the feasibility of using air scrubbers during black widow spider treatments to reduce the release concentrations. However, the use of scrubbers requires additional time, which results in the treated grapes being exposed to high concentrations of sulfur dioxide for longer than 30 minutes, risking damage to the fruit. Hence, CTGL and CGTFL have indicated a need to perform a comprehensive fumigation study in order to determine the lowest sulfur dioxide release concentration which can be achieved using scrubbers or other such equipment, without

damaging the fruit. If such a fumigation study is performed, the Agency may reconsider the 30 ppm release limit for black widow spider treatment if the study findings indicate that 30 ppm cannot be achieved without damaging the treated fruit. However, any reconsideration of the release limit would be in conjunction with the use of higher ventilation stacks, a buffer zone to protect bystanders, or other measures to ensure that bystanders are not exposed to sulfur dioxide levels above 0.25 ppm as a result of this use. As reference, the following table details the correlation between buffer zone size and release concentration for the sulfur dioxide grape fumigation scenario.

Table 6. PERFUM2 Sulfur Dioxide Grape Fumigation Parameters for 0.25 ppm Endpoint	
Buffer Size (meters)	Release concentration (ppm)
15	55
30	90
65	150

The details of the PERFUM2 assessments supporting the 30 ppm release rate, as well as the findings in Table 6 are attached as Appendix III. Required label language resulting from the release limits implemented in this section are detailed in Section XIII of this document.

VI. Dietary Exposure Assessment

Both sulfur dioxide (21CFR 182.3862) and sodium metabisulfite (21CFR 182.3766) are listed as GRAS by the FDA, with limitations, as food preservatives. Sulfites are found in many foods, primarily as a result of the GRAS preservative use. It is estimated that sulfite concentrations of >100 ppm may be found in dried fruits (excluding dark raisins and prunes), lemon and lime juices, wine, molasses, and sauerkraut juice. Dried potatoes, grape juice, wine vinegar, gravies, fruit topping, and maraschino cherries may contain between 50 and 100 ppm sulfur dioxide. Foods containing between 10 ppm and 50 ppm include pectin, fresh shrimp, corn syrup, sauerkraut, pickled foods, corn starch, hominy, frozen potatoes, maple syrup, imported jams and jellies, and fresh mushrooms (Lester 1995 as cited in CIR 2003).

The World Health Organization has emphasized the use of appropriate labeling for alerting individuals who cannot tolerate sulfites. After receiving and reviewing reports of adverse reactions in certain individuals following ingestion of sulfiting agents used as preservatives in food products, beverages, and fresh fruits and vegetables, the FDA required ingredient labels to list sulfite concentrations in excess of 10 ppm.

The uses of products containing inorganic sulfites are limited to use as indoor fumigants and as fungicidal control agents on grapes. A tolerance limit of 10 ppm (expressed as sulfite) for sulfur dioxide is established in 40 CFR 180.444, and sufficient data are available to support the reassessment of this tolerance. This 10 ppm tolerance is relatively low compared to concentrations of sulfites in many common foods and viewed as "GRAS" by FDA. Further this

level is below the level for which FDA requires labeling to alert sulfite-sensitive individuals. Therefore, residues resulting from the postharvest use of sulfur dioxide and sodium metabisulfite on grapes are not expected to be at a level of concern for the general population or any population subgroups.

VII. Drinking Water

Based on the use pattern and fate characteristics of these chemicals, the Agency does not have any drinking water concerns for sulfur dioxide and sodium metabisulfite.

VIII. Aggregate Assessment

The aggregate risk assessment integrates the assessments conducted for dietary, drinking water, and residential exposure if applicable. Currently there are no residential uses for either sulfur dioxide or sodium metabisulfite, as the use of inorganic sulfites is limited to fumigation of postharvest grapes, and bystander inhalation exposure concerns are being addressed in this decision document. Further, no common effects were seen in inhalation and oral toxicity studies. Based on environmental fate information for both chemicals, concentrations of concern are not expected in drinking water. Therefore, based on the uses of sulfur dioxide and sodium metabisulfite, no anticipated presence in drinking water, expected low residues on grapes, and consideration of the presence of sulfites in other common foods as a result of an FDA GRAS determination, the Agency has determined that aggregate exposure to sulfites does not pose a risk concern.

IX. Cumulative Exposure

Section 408(b)(2)(D)(v) of the FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider "available information" concerning the cumulative effects of a particular pesticide's residues and "other substances that have a common mechanism of toxicity." EPA does not have, at this time, available data to determine whether inorganic sulfites have a common mechanism of toxicity with other substances. Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, EPA has not made a common mechanism of toxicity finding as to inorganic sulfites and any other substances, and inorganic sulfites do not appear to produce a toxic metabolite produced by other substances.

For the purposes of this tolerance action, therefore, EPA has assumed that inorganic sulfites do not have a common mechanism of toxicity with other substances. For information regarding the Agency's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see the policy statements released by EPA's Office of Pesticide Programs concerning common mechanism determinations and procedures for cumulating effects from substances found to have a common mechanism on EPA's website at <http://www.epa.gov/pesticides/cumulative/>.

X. Human Health Risk Characterization

Taking into consideration all available information on sulfur dioxide and sodium metabisulfite, including the specific use pattern and limited exposure potential, FDA's classification of generally recognized as safe (GRAS), as well the historical presence of sodium metabisulfite in cosmetics and hair care products, the use of sulfur dioxide and sodium metabisulfite on postharvest grapes is unlikely to pose a significant risk to the general population or any population subgroup. Potential bystander exposure concerns have been addressed, and anticipated occupational exposures are not expected to pose a risk of concern to workers.

XI. Ecological Risk Assessment

Sulfur dioxide (SO_2) is a nonflammable, colorless gas. It is very soluble in water, with its solubility varying from 5.88 % at 104 °F to 22.9% at 32 °F. In moist air or fogs, it combines with water to form sulfurous acid (H_2SO_3), but it is only very slowly oxidized to sulfuric acid. Sulfur dioxide has a high vapor pressure (3,000 mm Hg at 20°C) and, thus is typically present in a gaseous phase. It can be absorbed in soil, with uptake being dependent on the pH and moisture content of the soil (ATSDR, 1998a). The Environmental Fate and Effects Division (EFED) has reported that the only environmental fate data potentially needed for sulfur dioxide would be a hydrolysis study; however, the Agency has determined that the chemistry of sulfur dioxide is so well documented in the open literature that an additional study is not necessary (EPA, 1993b). Sodium metabisulfite dissolves in water and forms sodium cations, disulfite anions and sulfur dioxide (OECD, 2001).

Concentration of sulfur dioxide as low as 1-2 ppm have been reported to cause severe stress to green plants, and dissolved sulfur dioxide could be toxic to aquatic life. A few acute toxicity tests for sodium metabisulfite have been reported. The 96-hour LC_{50} was 100 mg/L for fish and the 72-hr EC_{50} for algae was 48.1 mg/L. An acute 48-hr EC_{50} for daphnids has been reported to be 88.76 mg/L and a chronic NOEC of >10 mg/L was reported. In addition, a memo from the Ecological Effects Branch of EFED (EPA 1992), stated that all ecotoxicological studies for the indoor food uses of sodium bisulfite were waived, as it was determined that there would be little likelihood of a hazard to non-target organisms. Therefore, based on the high vapor pressure, the current use pattern (indoor food-use) and limits established for sulfur dioxide release in this decision document, the Agency has no ecological risk concerns resulting from the pesticidal use of sulfur dioxide and sodium metabisulfite.

XII. Tolerance Reassessment

The Agency is proposing no changes in the level or definition of the existing tolerance. Therefore, the current tolerance established at 40CFR 180.444 for sulfur dioxide residues (expressed as sulfite) in grapes is now considered reassessed under section 408(q) of the FFDCA.

XIII. Labeling for End-Use Products

The following tables have been developed by the Agency, and indicate the required label statements for sulfur dioxide and sodium metabisulfite end-use products:

Table 7. Label Revisions
<i>Label Statements for Sulfur Dioxide End-Use Products</i>
"When treating grapes for <i>Botrytis cinerea</i> (bunch rot/gray mold) or black widow spider in a warehouse fumigation chamber, do not release treated air into the atmosphere containing concentrations of sulfur dioxide in excess of 30 ppm (as determined by a Sensidyne or Kitagawa syringe sampler, or a Draeger handpump)."
"When treating grapes in a truck, trailer or other transport vehicle, do not release treated air into the atmosphere containing concentrations of sulfur dioxide in excess of 2 ppm (as determined by a Sensidyne or Kitagawa syringe sampler, or a Draeger handpump)."
"Sulfur dioxide concentration in transport vehicles must be below 2 ppm before moving over public roads or highways."
"Before moving or using this product, handlers must be trained how to appropriately use respirators which conform to OSHA requirements (described in 29 CFR Part 1910.124) and how to appropriately handle and use sulfur dioxide."
"When making gas applications or checking connections wear a NIOSH/MSHA approved full face respirator with an organic-vapor removing cartridge, in addition to sulfur dioxide-impervious gloves, boots and coveralls over long-sleeved shirt and long pants."
"If a sulfur dioxide concentration of 2 ppm is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved full face respirator with an organic-vapor removing cartridge. If sulfur dioxide concentrations of 10 ppm are exceeded, or when concentrations are unknown, an approved self-contained breathing mask (SCBA) or combination air supplied SCBA respirator must be used by all persons working in the fumigation area."
"Do not perform sulfur dioxide aerations concurrently from multiple chambers."

Table 8. Label Revisions
<i>Label Statements for Sodium Metabisulfite End-Use Products (pad labeling)</i>
"This pad contains sodium metabisulfite which may trigger an asthmatic response in sulfite sensitive individuals."

"This pad must be removed and disposed of prior to displaying grapes for sale. Do not allow consumers access to pads."

"If pad is torn: Carefully dispose of pad, pad contents, and grapes which have contacted pad contents."

"For Disposal: Place pad in a plastic bag, seal bag and place in an outdoor trash receptacle (dumpster)."

XIV. References

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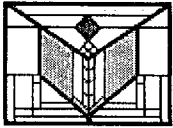
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U.S. EPA. 1992. Memo to Bruce Sidwell, PM 53; Accelerated Reregistration Branch, Special Review and Reregistration Division from Douglas Urban, Acting Branch Chief; Ecological Effects Branch, Environmental Fate and Effects Division. Re: Phase 4 Review of Reregistration Case #4056 for Sodium Bisulfite (DP Barcode D182472)

U.S. EPA. 1993b. Memo to Fred Betz, Acting Chief; Accelerated Reregistration Branch, Special Review and Reregistration Division and Bruce Sidwell, PM 53; Accelerated Reregistration Branch, Special Review and Reregistration Division from Silvia Termès, Chemist; Environmental Fate and Ground Water Branch, Environmental Fate and Effects Division. Re: Sulfur Dioxide ("The Fruit Doctor"), Reregistration Case #4086.

World Health Organization (WHO) 1999. Safety Evaluation of Certain Food Additives. WHO Food Additives Series 42. International Programme on Chemical Safety. Sulfur Dioxide and Sulfites (addendum).

World Health Organization (WHO). Sulfur Dioxide and Sulfite. WHO Food Additives Series 18. International Programme on Chemical Safety.



Tony Kish/DC/USEPA/US
07/02/2007 04:14 PM

To John Bazuin/DC/USEPA/US@EPA
cc
bcc
Subject Fw: Fruit Doctor follow-up

fyi

----- Forwarded by Tony Kish/DC/USEPA/US on 07/02/2007 04:15 PM -----



aalterri@aol.com
07/02/2007 03:45 PM

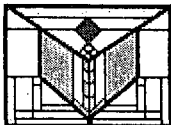
To Tony Kish/DC/USEPA/US@EPA
cc
Subject Fruit Doctor follow-up

Mr.
Kish:

Left a message for you letting you know I sent an e-mail with new wording on the Fruit Doctor label, clarifying the use intent. I mentioned data had been submitted previously to support these claims, but there was also a paper submitted authored by Dr. Ohmo (spelling could be wrong, going by memory and its been a while), Head of Viticulture Department (at that time), Univ. CA at Davis. This paper detailed what bacteria would be present and would affect off-flavors.

Terri

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Tony Kish/DC/USEPA/US
07/02/2007 04:13 PM

To John Bazuin/DC/USEPA/US@EPA
cc
bcc
Subject Fw: The Fruit Doctor

FYI

----- Forwarded by Tony Kish/DC/USEPA/US on 07/02/2007 04:14 PM -----



aalterri@aol.com
07/02/2007 03:26 PM

To Tony Kish/DC/USEPA/US@EPA
cc
Subject The Fruit Doctor

Dear Mr. Kish:

After our telephone conversation I was able to pull Snowden's file and the amended label we were discussing (attempting to discuss on my end!). I see your point that the proposed label wording does not state the intent of use. Attached is proposed wording for each claim that would clarify the need for using SO₂ on wine barrels and corks. Data to support these claims was submitted with the original amendment package. Please let me know if this wording helps to clarify the label's intent for these claims, or if you'd like the wording changed in any way.

I will give you a call as soon as I hit send on this e-mail...

Terri Aal

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Fruit Doctor -new claims portion of label.doc

TREATMENT OF GRAPES FOR JUICE OR WINE PRODUCTION

For microbial and/or oxidative control of grape juice during crush (for juice or wine production) and subsequent additions during fermentation and later while barrel aging and/or in preparation for bottle during wine manufacture: During crush add up to 0.5 lbs. per ton of grapes being crushed. When making transfer of SO₂ liquid or gas use a braided hose.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION – Fumigate barrels to minimize the effects of resident fungi and/or bacteria prior to the introduction of grape juice for wine production.

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels use 600-1000 ppm SO₂. Using Gas Cylinder only (no education tube) and a barrel-gassing unit with a pressure gauge provided by Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Close valve and extract SO₂ probe and replace bung. Insert SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER: If the liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

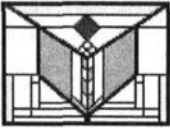
The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. To do so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Dreager tube, or similar device readings must occasionally be made during the gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production: fumigate the cork to reduce fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use 600-1000 ppm SO₂, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin in the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".



Tony Kish/DC/USEPA/US
07/02/2007 04:12 PM

To John Bazuin/DC/USEPA/US,
cc
bcc
Subject Fw: The Fruit Doctor

FYI

----- Forwarded by Tony Kish/DC/USEPA/US on 07/02/2007 04:14 PM -----



aalterri@aol.com
07/02/2007 03:26 PM

To Tony Kish/DC/USEPA/US@EPA
cc
Subject The Fruit Doctor

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After our telephone conversation I was able to pull Snowden's file and the amended label we were discussing (attempting to discuss on my end!). I see your point that the proposed label wording does not state the intent of use. Attached is proposed wording for each claim that would clarify the need for using SO₂ on wine barrels and corks. Data to support these claims was submitted with the original amendment package. Please let me know if this wording helps to clarify the label's intent for these claims, or if you'd like the wording changed in any way.

I will give you a call as soon as I hit send on this e-mail...

Terri Aal

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. Fruit Doctor -new claims portion of label.doc

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NOTE TO USER: If the liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. To do so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Dreager tube, or similar device readings must occasionally be made during the gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

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Cynthia
Giles-Parker/DC/USEPA/US
03/26/2007 08:49 AM

To Bazuin.John@epa.gov
cc
bcc
Subject Fw: Inorganic sulfites draft red

John

As discussed on last week, please schedule a team meeting.

Thanks

----- Forwarded by Cynthia Giles-Parker/DC/USEPA/US on 03/26/2007 08:49 AM -----



John Redden/DC/USEPA/US
03/23/2007 01:02 PM

To Pv Shah/DC/USEPA/US@EPA
cc Mark Perry/DC/USEPA/US@EPA, Cynthia
Giles-Parker/DC/USEPA/US@EPA, Tony
Kish/DC/USEPA/US@EPA, John
Bazuin/DC/USEPA/US@EPA
Subject Fw: Inorganic sulfites draft red

PV

Mark was kind enough to give me an electronic copy of the RED that includes sulfur dioxide (see below).

Please take a look at the Tox section. I think this will allow us to proceed.

Thanks

John

----- Forwarded by John Redden/DC/USEPA/US on 03/23/2007 12:59 PM -----

Mark Perry/DC/USEPA/US
03/23/2007 08:00 AM

To John Redden/DC/USEPA/US@EPA
cc
Subject Inorganic sulfites draft red



sulfites6.doc

John, this one doesn't have the label table with it... let me know if you need that too.

TREATMENT OF GRAPES FOR JUICE OR WINE PRODUCTION

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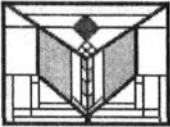
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Tony Kish/DC/USEPA/US
07/02/2007 04:13 PM

To John Bazuin/DC/USEPA/US@EPA
cc
bcc
Subject Fw: The Fruit Doctor

FYI

----- Forwarded by Tony Kish/DC/USEPA/US on 07/02/2007 04:14 PM -----



aalterri@aol.com
07/02/2007 03:26 PM

To Tony Kish/DC/USEPA/US@EPA
cc
Subject The Fruit Doctor

Dear Mr. Kish:

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I will give you a call as soon as I hit send on this e-mail...

Terri Aal

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. Fruit Doctor -new claims portion of label.doc



Dr Sidney Siemer
<siemer2@sbcglobal.net>
10/26/2004 01:41 PM

To John Bazuin/DC/USEPA/US@EPA
cc
bcc
Subject The Fruit Doctor, 3 labels

Dear John-

Thank you for calling regarding the Fruit Doctor labels. If you have any trouble opening and printing these labels, please let me know and I'll send them as pdf files.

Sincerely,
Terri Aal
Registration Assistant



Siemer & Associates, Inc. Fruit Doctor cylinder label rev 2004.doc Fruit Doctor 1 pg. label rev. 2004.doc



FRUIT DOCTOR Application Manual corks and barrels.doc

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

PRESSURIZED LIQUID GAS

HAZARDOUS VAPOR AND LIQUID – LIQUID CAUSES BURNS OF SKIN AND EYES.

Do not breath vapor in high concentration. Do not get liquid in eyes, on skin or clothing. Do not take internally. Wear eye and skin protection necessary to prevent contact when handling. Wash thoroughly after handling and before eating or smoking.

Persons with a history of respiratory problems should avoid exposure to the product.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas or pungent odor. Corrosive in presence of water. Do not spray water on any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage or disposal. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Return empty cylinders freight pre-paid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide	100.00%
TOTAL	100.00%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.• Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin clothing	<ul style="list-style-type: none">• Immediately flush contaminated skin with copious amount of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.• DO NOT apply any chemicals or ointments/lotions to damaged skin.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.• DO NOT apply any chemical or ointment to the eyes.• DO NOT wear contact lenses when working with or around sulfur dioxide.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	(LIQUID SULFUR DIOXIDE) <ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting.• Do not give anything by mouth to an unconscious person.

NOTES: • Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
• In the event of a medical emergency, you may also contact the National Pesticide Information Center at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

SEE APPLICATION MANUAL DESCRIBING USE OF FRUIT DOCTOR SULFUR DIOXIDE – THIS PRODUCT IS ACCOMPANIED BY AN APPROVED APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.

2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, Snowden's liability is limited to replacement of product or refund of purchase price. To the fullest extent permitted by law, the manufacturer shall not be liable for indirect or consequential damages.

EPA REG. NO. 11195-1

EPA EST NO. 11195-CA-1 or 2

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

Net Contents

See Attached Tag

Lbs.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY AN APPROVED APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide.....	100.0%
TOTAL.....	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

HARMFUL IF SWALLOWED.

DO NOT SWALLOW OR INHALE.

See Additional precautions in the application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.• Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin clothing	<ul style="list-style-type: none">• Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.• DO NOT apply any chemicals or ointments/lotions to damaged skin.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.• DO NOT apply any chemical or ointment to the eyes.• DO NOT wear contact lenses when working with or around sulfur dioxide.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<p>(LIQUID SULFUR DIOXIDE)</p> <ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting.• Do not give anything by mouth to an unconscious person.
NOTES: <ul style="list-style-type: none">• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.• In the event of a medical emergency, you may also contact the National Pesticide Information Center at 1-800-858-7378.	

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

Net Contents See Attached Tag Lbs.

THE FRUIT DOCTOR

APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

DANGER – PELIGRO

PRESSURIZED LIQUID GAS KEEP OUT OF REACH OF CHILDREN

Hazardous liquid and vapor under pressure. Inhalation may be fatal or cause serious acute illness. Prolonged or repeated exposure may cause impaired lung function. Do not breathe vapor. Liquid or excessive vapor can cause serious skin or eye injury. Do not get liquid on skin, in eyes or on clothing.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

It is recommended that persons with a history of respiratory problems should not be exposed to sulfur dioxide. Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to fresh air away from contaminated area.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin. **DO NOT** apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. **DO NOT** apply any chemical or ointment to the eyes. **DO NOT** wear contact lenses when working with or around sulfur dioxide. Seek

medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the Nation Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period.

PROTECTIVE CLOTHING – Wear protective clothing, gloves and boots when handling this product. If braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body clothing impervious to sulfur dioxide, and use gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

RESPIRATORY PROTECTION - If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube; Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved full-face respirator. This type mask may be used for short exposures of very limited durations, but user must be aware of possible overloading in unmeasured concentrations of SO₂. A NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator should always be available for emergencies.

POSTING OF FUMIGATED WAREHOUSE AREAS

Before fumigation, the applicator must post markings at all entrances of fumigated areas with signs bearing the following statement in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.


Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

POSTING SIGNS (FUMIGANT MARKING) FOR TRUCKS, VANS, AND RAILCARS

Proper fumigant markings must be prominently displayed on all trucks, vans or railcars that have been fumigated with SO₂ prior to transport. The fumigant markings must follow all current required Department of Transportation regulations. Fumigant marking must be displayed so that it can be seen by any person attempting to access the interior of the transport vehicle or freight container. The fumigant marking must be formatted as shown below:

The fumigant marking must consist of red letters on a white background that is at least 30 cm (11.8 inches) wide and at least 25 cm (9.8 inches) high. The fumigant marking must read as follows:

<p style="text-align: center;">DANGER</p> <p style="text-align: center;"></p> <p style="text-align: center;">THIS UNIT IS UNDER FUMIGATION WITH SULFUR DIOXIDE, LIQUEFIED APPLIED ON</p> <p style="text-align: center;">Date _____ Time _____</p> <p style="text-align: center;">DO NOT ENTER</p>
--

The fumigant marking must stay on the truck, van, or railcar until the fumigated container is unloaded and the transport vehicle or freight container has undergone sufficient aeration to assure that it does not pose an unreasonable risk to health and safety (below the threshold concentration of 2.0 ppm).

The applicator must show on the manifest accompanying the load that the trailer has been fumigated with SO₂. The statement on the manifest must show the following:

1. Trailer fumigated with SO₂.
2. The date and the time of fumigation.
3. Name of fumigant used.

AERATION AND RE-ENTRY

After fumigation, treated areas must be aerated until the level of sulfur dioxide is below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device.). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

STORAGE, HANDLING, AND DISPOSAL

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use. Do not contaminate water, food, or feed by storage or disposal. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location.

Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders.

When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Do not use cylinders for any other purpose.

Pesticide Disposal – Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc. for proper shipping instructions.

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote air flow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by *Botrytis cinerea*. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO₂ through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO₂ saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficacy. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO₂ from the recirculating air to equal the rate of removal by direct venting.

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:

Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the cylinder to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve

and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY - LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION - COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighted, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

SMALL CYLINDER

GRAPES

For post-harvest use only on grapes held in cold storage to suppress spread of grey mold caused by *Botrytis cinerea*.

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon

after harvest, SO₂ fumigation can be applied in a truck or railcar if the grapes have been gassed three (3) or fewer times.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

For warehouse use, refer to Warehouse Storage section of this Application Manual.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc. system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

TREATMENT OF GRAPES FOR JUICE OR WINE PRODUCTION

For microbial and/or oxidative control of grape juice during crush (for juice or wine production) and subsequent additions during fermentation and later while barrel aging and/or in preparation for bottling during wine manufacture: During crush add up to 0.5 lbs per ton of grapes being crushed. When making transfer of SO₂ liquid or gas use a braided hose.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels use 600-1000 ppm SO₂. Using Gas Cylinder only (no eduction tube) and a barrel gassing unit with a pressure gauge provided by

Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Close valve and extract SO₂ probe and replace bung. Insert SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER; If the liquid SO₂ cylinder (with eduction tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. To do so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Dreager tube, or similar device readings must occasionally be made during the gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production:

To fumigate cork bags, use 600-1000 ppm SO₂, use a Gas Cylinder only (no eduction tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin in the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

Revision date 9/2004

DATA PACKAGE BEAN SHEET

Date: 03-Jul-2007

Page 1 of 2

Decision #: 290218

DP #: (335119)

NON PRIA

Parent DP#:

*** Registration Information ***

Registration: 11195-1 - THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE

Company: 11195 - SNOWDEN ENTERPRISES, INC

Risk Manager: RM 22 - Tony Kish - (703) 308-9443 Room# PY1 S-7318

Risk Manager Reviewer: John Bazuin JBAZUIN

Sent Date: 23-Nov-1994

Calculated Due Date: 08-Mar-1995

Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: (320) DATA REQUIRED; LABEL REVISION;

Ingredients: 077601, Sulfur dioxide(100%)

*** Data Package Information ***

Expedite: ☐ Yes ☒ No

Date Sent: 29-Dec-2006

Due Back: _____

DP Ingredient: 077601, Sulfur dioxide

DP Title: Company response to conditional study objection

CSF Included: ☒ Yes ☐ No

Label Included: ☒ Yes ☐ No

Parent DP #: _____

Assigned To

Date In

Date Out

Organization: RD / TRB

Last Possible Science Due Date: 22-Nov-1992

Team Name: TOX

Science Due Date: _____

Reviewer Name: _____

Sub Data Package Due Date: _____

Contractor Name: _____

*** Studies Sent for Review ***

No Studies

*** Additional Data Package for this Decision ***

Printed on Page 2

*** Data Package Instructions ***

When this Sulfur Dioxide product was first registered on June 17, 1992 a condition of the registration was that the company submit a radiolabeled grape metabolism study. The company submitted this study on October 7, 1992 (their cover letter date); it received the MRID No. 425524-01 (you've already got a blowback of it). It was reviewed by Bonnie Cropp-Kohlighian in CB II (review dated September 2, 1993) and was found to be deficient but potentially repairable. The company responded to the request for more data of information in a letter dated November 8, 1994 and it is this letter that needs review. Actually, OPPIN Tracking indicates that the latter letter was Beaned back to HED (Bonnie got it again) and was logged in and out on the same day. However, no record of HED's reaction to the new data/information has been found. Therefore, please review the Nov. 8, 1994 study deficiency response letter and comment on whether it "fixes" the original study. Then, in any case (if it is possible) do a DEEM run for Sulfur Dioxide and estimate the risk that results from current use of this chemical. The only active tolerance for SO2 that I'm aware of is 10 ppm in/on Grapes.

In the data review package I have provided, in addition to the letter that needs review, as complete a background on the early review of SO2, the need for the grape metabolism study, the conditional registration requirement, and the submission and review of the study as I've been able to find. I also enclose copies of the latest accepted label and only accepted CSF for the instant product.

Thanks,
John Bazuin

NOTE: This Bean is intended for ARIA. It has been discussed with John Redden and he is expecting it.



SIEMER & ASSOCIATES INCORPORATED
Consultants to Agriculture and the Chemical Industry

July 5, 1995

Ms. Ruth Douglas
Product Manager (32)
Antimicrobial Program Branch
Registration Division (H7504C)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 50460

Subject: Snowden Enterprises, Inc.
The Fruit Doctor, EPA Reg. No. 11195-1
Label Amendment

Dear Ms. Douglas:

On behalf of Snowden Enterprises, Inc. we have enclosed an application for an amendment for the above mentioned product.

The new claims being added to the label include:

1. Treatment of grapes for juice or wine production
2. Sanitization of barrels used in wine production
3. Sanitization of corks used in wine production

To support this amendment we have enclosed:

1. An application for Pesticide
2. Five copies of the proposed label with the additions highlighted
3. Letter from Snowden Enterprises authorizing Siemer & Associates to act on their behalf


Data to support these claims has been submitted to the Agency previously but we are unable to cite the MRID numbers, since to our knowledge, none have been assigned. We have inquired about this several times but have not received any numbers/or response on this subject from the Agency to reference.

If you have any questions or need further information, please contact Dr. Siemer or myself.

Thank you for your assistance.

Sincerely,

SIEMER & ASSOCIATES, INC.


Terri Aal
Registration Assistant

DATA PACKAGE BEAN SHEET

Date: 03-Jul-2007

Page 1 of 2

Decision #: 290220

DP #: (220722)

PRIA

Parent DP#:

*** Registration Information ***

Registration: 11195-1 - THE FRUIT DOCTOR/COMPRESSED SULFUR DIOXIDE

Company: 11195 - SNOWDEN ENTERPRISES, INC

Risk Manager: RM 22 - Tony Kish - (703) 308-9443 Room# PY1 S-7318

Risk Manager Reviewer: John Bazuin JBAZUIN

Sent Date: 18-Jul-1995

Calculated Due Date: 22-Oct-2007

Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: (R17) NEW USE;EACH ADDITIONAL NEW FOOD USE;

Ingredients: 077601, Sulfur dioxide(100%)

*** Data Package Information ***

Expedite: ☐ Yes ☒ No

Date Sent: 04-Nov-1995

Due Back: _____

DP Ingredient: 077601, Sulfur dioxide

DP Title: _____

CSF Included: ☐ Yes ☒ No

Label Included: ☒ Yes ☐ No

Parent DP #: _____

Assigned To

Date In

Date Out

Organization: HED / RRB2

12-Feb-1996

Last Possible Science Due Date: 25-Apr-2007

Team Name: _____

Science Due Date: _____

Reviewer Name: Nielsen, Alan

Sub Data Package Due Date: _____

Contractor Name: _____

*** Studies Sent for Review ***

No Studies

*** Additional Data Package for this Decision ***

Printed on Page 2

*** Data Package Instructions ***

to whom it may concern in HED-RCAB: Please route the enclosed labeling amendment proposal for this product, the SO2 gas (sulfur dioxide) fumigant, to the appropriate review group. The amendment request involves adding treatment of grapes to be used for wine or juice production, and to be used for sanitization of wine barrels and wine corks. Also included in this package for your attention is an earlier informal, perfunctory review conducted on a similar proposal which was submitted by CA EPA. Please note the short review written by CBTS. Thanks.

3/13/95

MEMORANDUM

SUBJECT: ID# 286058 Special Local Need Considerations to Support the use of **Sulfur Dioxide** on **Grapes During Crush, Wine Barrels** and Corks. CBTS#: 14616
DPBarcode: D208680

FROM: The Amended Registration Team
Chemistry Branch Tolerance Support
Health Effects Division (7509C)

TO: Robert Travaglini/Ruth Douglas, PM Team 32
Antimicrobial Branch
Registration Division (7505C)

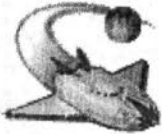
The California Environmental Agency on behalf of Snowden Enterprises, Inc. has inquired about the possibility of apply for a Section 24(c) registration (Special Local Need) to support the use of sulfur dioxide as a sterilant on grapes during crush, to halt fermentation of grape juice and as a sterilant fumigant for wine barrels and corks.

A tolerance of 10 ppm is established for **sulfite** residues of the fungicide, sulfur dioxide (determined as SO₂) in or on grapes, postharvest.

Amended Registration Team Conclusions

After consultation with Walter Francis, RD, CBTS concludes that the requested uses are not under the purview of EPA. Questions concerning the addition of sulfur dioxide to grapes during crush or to juice to halt fermentation should be directed to FDA, as these uses would be classified as direct food additive uses. Questions concerning fumigation of wine barrels and corks would likely be addressed by the Bureau of Alcohol, Tobacco and Firearms.

cc: RF, circ., ART File, D.Davis.



John Redden/DC/USEPA/US
03/23/2007 01:02 PM

To Pv Shah/DC/USEPA/US@EPA
cc Mark Perry/DC/USEPA/US@EPA, Cynthia
Giles-Parker/DC/USEPA/US@EPA, Tony
Kish/DC/USEPA/US@EPA, John
bcc

Subject Fw: Inorganic sulfites draft red

PV

Mark was kind enough to give me an electronic copy of the RED that includes sulfur dioxide (see below).

Please take a look at the Tox section. I think this will allow us to proceed.

Thanks

John

----- Forwarded by John Redden/DC/USEPA/US on 03/23/2007 12:59 PM -----

Mark Perry/DC/USEPA/US
03/23/2007 08:00 AM

To John Redden/DC/USEPA/US@EPA
cc
Subject Inorganic sulfites draft red



sulfites6.doc

John, this one doesn't have the label table with it... let me know if you need that too.

Reregistration Eligibility Decision

Inorganic Sulfites

**Special Review and Reregistration Division
Office of Pesticide Programs
U.S. Environmental Protection Agency
1801 South Bell Street
Arlington, VA 22202**

Introduction

The Environmental Protection Agency (EPA) has completed its Reregistration Eligibility Decision (RED) for the inorganic sulfites case, which includes the chemicals sulfur dioxide and sodium metabisulfite. This assessment provides information to support the issuance of a Reregistration Eligibility Decision for inorganic sulfites. EPA's pesticide reregistration process provides for the review of older pesticides (those initially registered prior to November 1984) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to ensure that they meet current scientific and regulatory standards.

In this document, EPA presents the results of its review of the potential human health effects of dietary, drinking water and occupational/bystander exposure to inorganic sulfites, as well as its ecological risk findings. Evaluations performed by the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), and the Agency for Toxic Substances and Disease Registry (ATSDR) were relied upon for this assessment, in addition to peer-reviewed evaluations performed by the Cosmetic Ingredient Review (CIR), the Organization for Economic Cooperation and Development-Screening Information Data Set (OECD-SIDS) and from other open literature sources. Based on this assessment, the Agency has determined that products containing sulfur dioxide or sodium metabisulfite are eligible for reregistration provided the necessary label changes are made. As a result of this assessment, one tolerance has been reassessed.

I. Use Information

The inorganic sulfites reregistration case includes the chemicals sulfur dioxide (CAS No. 7446-09-5) and sodium metabisulfite (CAS No. 7681-57-4). As active ingredients, these chemicals are fungicides typically used to treat for *Botrytis cinerea*, the fungus which causes bunch rot, or gray mold disease on grapes. The sulfur dioxide products are formulated as a compressed liquid that converts to a gas upon release. These products are used in cold-storage warehouses, trucks, vans and train cars for post-harvest grape fumigation. In addition to the fungicidal use against *Botrytis cinerea*, sulfur dioxide is also used in combination with carbon dioxide to treat for black widow spider on grapes in warehouse settings. The black widow spider treatment is not included on any sulfur dioxide product labels, as this use is permitted solely under a FIFRA 24(c) carbon dioxide registration (CA920007). The sodium metabisulfite products are composed of the anhydrous, solid active ingredient contained in semi-sealed pads which are added to containers holding grapes prior to shipping. The pads absorb moisture generated by grapes, and release low levels of sulfur dioxide in the range of 1-5 ppm.

End-use inorganic sulfite products contain sulfur dioxide at 99.9 to 100%, and sodium metabisulfite at 37.5 to 98.5%. The Agency currently has six of the ten sodium metabisulfite products designated as containing sodium bisulfite (078201) as the active ingredient. As of the publication of this RED, the Agency will transfer these registrations to the sodium metabisulfite designation (111409). The tolerance being reassessed in this document, with the respective

citation in the Code of Federal Regulations (CFR), and the use pattern as an active ingredient is listed in Table 1.

Table 1. Tolerance Being Reassessed for Inorganic Sulfites					
Tolerance Expression	CAS No.	40 CFR	PC Code	Limit	Use Pattern
Active Ingredient					
Sulfur dioxide (as sulfite residues)	7446-09-5	§180.444	77601	10 ppm	grape, postharvest/used as fungicide and preservative
Sodium metabisulfite (as sulfite residues)	7681-57-4	§180.444	111409	10 ppm	grape, postharvest/used as fungicide and preservative

Both sulfur dioxide (21CFR §182.3862) and sodium metabisulfite (21CFR §182.3766) are listed as GRAS (Generally Recognized as Safe) by the FDA (Food and Drug Administration) as preservatives in certain foods¹. Sodium metabisulfite is also used up to a concentration of 1% as an antioxidant in hair care products and as a reducing agent in cosmetic formulations (CIR 2003). Sources of sulfur dioxide include the combustion of fossil fuels, smelting of sulfide ores, volcanic emissions, and other natural sources. Sulfur dioxide is also used to manufacture hydro-sulfites, to bleach wood pulp and paper, to process, disinfect, and bleach food, for waste and water treatment, in metal and ore refining, and in oil refining (ATSDR-MMG 2004).

II. Physical/Chemical Properties

The physical and chemical properties of the inorganic sulfites are provided in Table 2.

Table 2. Physical/Chemical Properties of Inorganic Sulfites				
	Sulfur Dioxide	References	Sodium Metabisulfite	References
Molecular weight	64.06	ATSDR, 1998a (*NIOSH, 1994)	190.109	HSDB, 2005
Color/Form	colorless		white crystals or powder	
Odor	strong odor; suffocating		slight odor of sulfur dioxide	
Melting point	-72.7°C		150° C	OECD, 2001 HSDB, 2005
Boiling point	-10° C		Decomposes	
Density	2.927 g/L (gas) 1.434 g/L (liquid)		1.4	

¹ Sodium metabisulfite and sulfur dioxide are GRAS when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B1; on fruits or vegetables intended to be served raw to consumers or sold raw to consumers; or to be presented to consumers as fresh.

Table 2. Physical/Chemical Properties of Inorganic Sulfites				
	Sulfur Dioxide	References	Sodium Metabisulfite	References
Solubilities	22.8 g/100 mL (water at 0° C) 8.5 mL/100 mL (water at 25° C)* 11.3 g/100 mL (water at 20° C) 0.58 g/100 mL (water at 90° C)	NIOSH, 1994	54,000 mg/L water @ 20° C 81.7 g/100 mL water @ 100° C	Not available
Vapor Pressure	3000 mm Hg at 20° C			
Relative vapor density	2.25 (air = 1)			
Relative density	1.4 at -10° C (water = 1)			
Specific gravity	2.26	MSDS, 1996		

III. Hazard Assessment

A. Acute Toxicity

Sufficient toxicity information is available for both sulfur dioxide and sodium metabisulfite from publicly available sources.

Sodium Metabisulfite

Table 3. Acute Toxicity Data for Sodium Metabisulfite				
Study Type	Species	Lethal Dose (LD ₅₀) or Lethal Concentration (LC ₅₀)	Toxicity Category ¹	Reference
Acute Oral	rat	LD ₅₀ = 1540 mg/kg, death observed ≥1250 mg/kg LD ₅₀ = 1131 mg/kg	III	TOXNET, 2005 OECD, 2001
Acute Dermal	rat	LD ₅₀ > 2000 mg/kg	III	TOXNET, 2005
Acute Inhalation	Not Available			
Dermal Sensitization	guinea pig	Non-sensitizer	----	OECD, 2001
Skin and Eye Irritation	rabbit	Not irritating to the skin; Irritating to the eyes	Not provided	OECD, 2001

¹ The toxicity category ratings were not provided by OECD.

At high oral doses (> 1% or 10,000 ppm in the diet), effects seen in rats were local irritation, including inflammatory changes and hyperplasia in the stomach (WHO, 1999). Although dermal toxicity studies performed with sodium metabisulfite in laboratory animals have not been submitted to the Agency, a report by the Cosmetic Ingredient Review Committee (CIR, 2003)

indicates that dermal penetration is unlikely due to the highly charged nature of sulfites. Cosmetic products containing sodium metabisulfite range from shampoos and hair coloring products, to eye and skin lotions, and makeup foundations. Sodium metabisulfite was not sensitizing in the standard skin sensitization test in the guinea pig.

Sulfur Dioxide:

Table 4. Acute Toxicity Data for Sulfur Dioxide				
Study Type	Species	Lethal Dose (LD ₅₀) or Lethal Concentration (LC ₅₀) Results	Toxicity Category ¹	Reference
Acute Oral	Not Available			
Acute Dermal	Not Available			
Acute Inhalation	guinea pig	Lowest published LC: 1039 ppm/24 hr (2.7 mg/L/24 hr)	IV	NIOSH, 2004
	guinea pig	LC ₅₀ = 1000 ppm/20 hr; 130 ppm/154 hr = 2620 mg/m ³ /20hr or 2.6 mg/L	IV	HSDB, 2005
	mouse	LC ₅₀ : 3000ppm/30 min (7.9 mg/L/30min)	IV	NIOSH, 2004
	mouse	LC ₅₀ = 150 ppm/847 hr; 1000 ppm/4 hr (2.6 mg/L)	IV	HSDB, 2005
	rat	Lethal concentration (LC ₅₀): 2520 ppm/1 hr or 1.65 mg/L; 2168 mg/m ³ ; 20 mg/m ³ /5 hr; 30 mg/m ³	III	NIOSH, 2004
Dermal sensitization	Not Available			

¹ The toxicity category ratings were not provided by NIOSH.

B. Reproduction/Developmental Toxicity/Endocrine Disruption:

No evidence of reproductive toxicity was observed in rats exposed orally to 942 mg/kg bw/day of sodium metabisulfite (2% in the diet) in a diet supplemented with thiamine (OECD 2001). Developmental studies reported by the CIR 2003 indicate sodium metabisulfite produced no adverse findings, either maternal or fetal, in mice up to 160 mg/kg in a water solution, in rats up to 110 mg/kg in the diet, in hamsters up to 120 mg/kg in the diet, or in rabbits up to 123 mg/kg in the diet. These results are supported by developmental information reported by WHO (1999) in which no effects were observed on implantation, or on maternal or fetal survival in sodium metabisulfite doses of up to 150, 110 and 120 mg/kg bw in mice, rats, and hamsters, respectively (WHO Series 18). Reproductive effects were not observed in rats exposed to 5-30 ppm sulfur dioxide for a period from 9 days prior to mating until 12-14 days of pregnancy; or in mice exposed to 25 ppm sulfur dioxide 7 hours/day on gestation days 6-15; or in rabbits exposed to 70 ppm sulfur dioxide 7 hours/day on gestation days 6-18 (ATSDR, 1998a).

C. Carcinogenicity:

Sulfur dioxide and sodium metabisulfite are currently not classifiable (Group 3) as to their carcinogenicity to humans (IARC 1992). As for laboratory animals, there was limited evidence for the carcinogenicity to sulfur dioxide, based on inhalation studies reviewed by the IARC, which indicated an increased incidence of lung tumors in female mice after exposure to sulfur dioxide. However, the concentrations of sulfur dioxide evaluated in these inhalation studies were not reported. Conclusions of the OECD SIDS report indicated 2% sodium metabisulfite via feed (20,000 ppm or 1,000 mg/kg/day) for 104 weeks was not carcinogenic in Wistar rats.

D. Genotoxicity/Mutagenicity:

Sodium metabisulfite was negative in an Ames/microsome assay (SRI International 1978b as cited by CIR 2003). Negative results were also reported for a host-mediated assay using mice to test mutagenicity against bacteria and yeast, in a cytogenetic assay using rats (Litton Bionetics 1972 as cited in CIR 2003), and a cytogenetic assay using sulfite oxidase-deficient hamsters and mice (Renner and Wever 1983 as cited in CIR 2003). Sodium metabisulfite was negative in one dominant lethal assay using rats while another study indicated further testing was needed (CIR 2003). However, genetic toxicity studies summarized by the OECD 2001 indicate sodium metabisulfite is equivocal in *in vitro* testing, but is not genotoxic in the *in vivo* testing.

E. Special Considerations for Infants and Children

There is sufficient toxicological information for sulfur dioxide and sodium metabisulfite to address FQPA considerations. The available information indicates that there is no evidence of increased quantitative or qualitative susceptibility of the offspring after *in utero* or post-natal exposure. Based on this information, there is no concern, at this time, for increased sensitivity to infants and children to sulfur dioxide and sodium metabisulfite when used on postharvest grapes.

F. Incident Data

In evaluating incidents to humans from sulfur dioxide and sodium metabisulfite exposure, the Agency evaluated data from the National Pesticide Information Center, the National Institute of Occupational Safety and Health (NIOSH), National Poison Control Centers, the California Department of Pesticide Regulation (CDPR), and the Agency's Incident Data System. The CDPR sulfur dioxide search identified 87 incident reviews from 1982 through 2003, many of which resulted from non-pesticidal uses. The NIOSH system search indicated that 19 incidents were reported involving sulfur dioxide from 1998 through 2003. Most of these cases involved effects such as chest pains, dizziness, numb hands, teary eyes, blurred vision, itching, and rashes. A 1991 report from the CDPR system also identified a case involving a delivery worker developing an asthmatic response following exposure to sulfur dioxide drift from a nearby fumigation facility. No incidents were reported for sodium metabisulfite; however, sodium bisulfite was implicated in the deaths of three workers using sodium bisulfite with a non-pesticidal use pattern.

IV. Occupational Risk Assessment

Regulatory exposure levels for inhalation exposure to sulfur dioxide include the OSHA PEL, NIOSH IDLH, and AIHA ERPG-1. The OSHA PEL (permissible exposure limit) is set at 5 ppm and is based on a time weighted average over an 8 hour workshift. The NIOSH IDLH (immediately dangerous to life or health) is 100 ppm and the AIHA ERPG-1 is 0.3 ppm. The AIHA (American Industrial Hygiene Association) ERPG-1 is the maximum airborne concentrations below which it is believed that nearly all persons could be exposed for up to 1 hour without experiencing other than mild transient adverse health effects or perceiving a clearly defined, objectionable odor.

Sodium Metabisulfite

Products which contain sodium metabisulfite as the active ingredient are comprised of the solid, anhydrous active ingredient contained in semi-sealed pads, which are placed in containers holding grapes for shipping and storage. In each crate the sodium metabisulfite pads are separated from the grapes by a layer of tissue paper and a layer of kraft paper, and then the entire contents are wrapped in a porous polyethylene liner bag before the crate is closed. As the pads absorb ambient moisture, they release sulfur dioxide to a level of 1-5 ppm within the crate. Since the crates are partially open on the sides and top, the free exchange of low levels of sulfur dioxide with the surrounding air occurs continuously. Grapes are usually kept in these containers for 4-6 weeks before arrival at retail establishments. Once the grapes arrive for retail sale, the pads are removed from the crates and discarded. The low level of sulfur dioxide present in the crates or released to the surrounding environment is not expected to result in an occupational inhalation exposure of concern, as any exposure is expected to be of short duration and at or below the 8 hour OSHA PEL. Furthermore, since the sodium metabisulfite is contained in sealed pads, the likelihood of either oral or dermal exposure to the solid is considered minimal, providing the pads stay intact.

Pad disposal directions vary among the product labels; therefore, the Agency has determined that standardization of the labeling on the pad itself, is necessary. This labeling will include revised handling and disposal statements, in addition to a statement for asthmatics and sulfite sensitive individuals which identifies the presence of sulfites in these products. These label statements are detailed in Section XIII of this document. Based on the product use patterns, the low levels of sulfur dioxide released and the additional label requirements included in this document, the Agency expects occupational exposures to sodium metabisulfite to be below levels of concern.

Sulfur Dioxide

Products which contain sulfur dioxide as the active ingredient are formulated as a liquid under pressure which forms a gas upon release for grape fumigation. These products are stored in steel cylinders and applied to the treatment area via a hose system with a detector tube at a maximum rate of 1% concentration (based on measured volume of the fumigation chamber) for the initial

fumigation, and up to 0.5% gas concentration for maintenance fumigations. Grapes are fumigated on a 7-10 day interval, and may be treated up to 20 times. Fumigation may occur in various types of cold-storage warehouses, or in truck trailers, vans and railcars.

Current sulfur dioxide end-use product labels require various levels of personal protective equipment (PPE) during application and while checking hose connections. Workers must use sulfur dioxide detection devices (Draeger handpumps, Sensidyne or Kitagawa syringe samplers) to monitor the concentration in the fumigation area. If concentrations exceed 2.0 ppm in the fumigation area, the use of a NIOSH/MSHA approved respirator is required for "short exposures of limited duration." Labels also require a self-contained breathing apparatus (SCBA) or combination air-supplied respirator/SCBA for exposures to unknown concentrations, re-entry into a treated area with concentrations in excess of 2.0 ppm, and for emergencies. Other PPE requirements on current labels include protective clothing, gloves and boots impervious to sulfur dioxide, in addition to eye protection. These PPE requirements, as well as the respirator requirements, however, are inconsistent among product labels. Respirator requirements are also not clear regarding when a standard respirator (with an organic-vapor-removing cartridge) is acceptable or when a SCBA respirator is required. In order to clarify when SCBA respiratory protection is necessary and to address other PPE inconsistencies, the Agency has developed standard personal protective equipment (PPE) label requirements as stated in Section XIII of this document.

The Agency believes that the current PPE requirements with the additional labeling language required in this reregistration decision are adequate to ensure that workers are not exposed to sulfur dioxide levels of concern.

V. Bystander Inhalation Risk Assessment

Several regulatory endpoints and standards for ambient air concentrations of sulfur dioxide have been established at the state, Federal and international levels (see Table 5). The endpoint selected by the Agency for the bystander inhalation risk assessment is 0.25 ppm sulfur dioxide, with a 1-hour exposure duration. The 0.25 ppm concentration is based on an ambient air quality standard set by the California Air Resources Board. This endpoint is deemed most applicable to this exposure scenario, as it is based on effects of concern for bystanders (such as bronchoconstriction, shortness of breath, wheezing, and chest tightness during physical activity in persons with asthma), and is recognized by the State in which nearly all grape treatments occur. Further, considering the 15-30 minute aeration period used with the grape treatment, an endpoint based on an exposure duration of 1-hour is considered appropriate. The following table lists additional regulatory and guideline concentrations for sulfur dioxide in ambient air.

Table 5. Sulfur Dioxide Air Concentrations used for Regulatory/Guideline Purposes		
Exposure Limit	Agency/Group	Regulatory/Guideline Level (ppm)
1-hour	WHO	0.13
	California Air Resources Board	0.25

3-hour	AIHA (ERPG-1)	0.3
	State of Washington	0.25
	State of North Dakota	0.27
	State of Montana	0.5
	US EPA	0.5
	State of Florida	0.5
	State of Maine	0.4
	State of New Mexico	0.5
	State of New York	0.25
	State of Oregon	0.02

Based on the Probabilistic Exposure and Risk Model for Fumigants, version 2.1.1 (PERFUM2) and available incident data, the Agency has concerns for bystander exposure during grape fumigations which involve the release of high levels of sulfur dioxide during aeration. For *Botrytis cinerea* treatments, a practice known as "total utilization" is almost exclusively employed. Total utilization involves circulating the sulfur dioxide gas (typically 1000 to 2500 ppm) within the fumigation chamber until it is almost completely absorbed into the grapes, packaging material and any ambient moisture. As a result, only very low concentrations (i.e., less than 30 ppm) of sulfur dioxide are typically released from the ventilation stack during the aeration phase. However, current product labels do not limit sulfur dioxide release concentrations for this treatment; therefore if total utilization is not employed and much higher levels of sulfur dioxide are vented to the atmosphere, bystander exposure is a concern. To address this concern, the Agency is establishing a maximum release concentration for *Botrytis cinerea* warehouse treatments of 30 ppm, and truck/trailer treatments of 2 ppm. The disparity between these two release concentrations is based on the fact that the release of treated air following warehouse fumigation is performed at a flow rate of 2700 to 8100 ft³/min and at a typical height of 15 feet above ground level, thereby further reducing the potential for bystander exposure. Based on the results of the PERFUM2 model, this 30 ppm release concentration level is expected to limit bystander exposure potential with this use to sulfur dioxide concentrations at or below 0.25 ppm. This bystander exposure scenario is considered "worst-case," in that it assumes the ventilation stack is at the edge of the treatment warehouse, and the warehouse is in close proximity to the fumigation facility property line.

Treatment for black widow spider, however, is performed at a much higher concentration of sulfur dioxide (up to 10,000 ppm) than is used for *Botrytis cinerea* treatments. Further, due to the potential for damaging the fruit, these high concentrations may not be held in contact with the grapes for more than approximately 30 minutes; thus total utilization is not feasible. As a result, much higher sulfur dioxide concentrations are released during aeration for treatment of black widow spider; therefore, the Agency has bystander exposure concerns for this use. To address bystander concerns during black widow spider treatment, the Agency is also placing a limit of 30 ppm on the sulfur dioxide release concentration during the aeration phase of black widow spider treatment. As stated above, based on the results of the PERFUM2 model, this release restriction is expected to limit bystander exposure potential with this use to sulfur dioxide concentrations at or below 0.25 ppm. The Agency has been working with the California Table Grape Commission (CTGC) and the California Grape and Tree Fruit League (CGTFL) to determine the feasibility of

using air scrubbers during black widow spider treatments to reduce the release concentrations. However, the use of scrubbers requires additional time, which results in the treated grapes being exposed to high concentrations of sulfur dioxide for longer than 30 minutes, risking damage to the fruit. Hence, CTGL and CGTFL have indicated a need to perform a comprehensive fumigation study in order to determine the lowest sulfur dioxide release concentration which can be achieved using scrubbers or other such equipment, without damaging the fruit. If such a fumigation study is performed, the Agency may reconsider the 30 ppm release limit for black widow spider treatment if the study findings indicate that 30 ppm cannot be achieved without damaging the treated fruit. However, any reconsideration of the release limit would be in conjunction with the use of higher ventilation stacks, a buffer zone to protect bystanders, or other measures to ensure that bystanders are not exposed to sulfur dioxide levels above 0.25 ppm as a result of this use. As reference, the following table details the correlation between buffer zone size and release concentration for the sulfur dioxide grape fumigation scenario.

Table 6. PERFUM2 Sulfur Dioxide Grape Fumigation Parameters for 0.25 ppm Endpoint	
Buffer Size (meters)	Release concentration (ppm)
15	55
30	90
65	150

The details of the PERFUM2 assessments supporting the 30 ppm release rate, as well as the findings in Table 6 are attached as Appendix III. Required label language resulting from the release limits implemented in this section are detailed in Section XIII of this document.

VI. Dietary Exposure Assessment

Both sulfur dioxide (21CFR 182.3862) and sodium metabisulfite (21CFR 182.3766) are listed as GRAS by the FDA, with limitations, as food preservatives. Sulfites are found in many foods, primarily as a result of the GRAS preservative use. It is estimated that sulfite concentrations of >100 ppm may be found in dried fruits (excluding dark raisins and prunes), lemon and lime juices, wine, molasses, and sauerkraut juice. Dried potatoes, grape juice, wine vinegar, gravies, fruit topping, and maraschino cherries may contain between 50 and 100 ppm sulfur dioxide. Foods containing between 10 ppm and 50 ppm include pectin, fresh shrimp, corn syrup, sauerkraut, pickled foods, corn starch, hominy, frozen potatoes, maple syrup, imported jams and jellies, and fresh mushrooms (Lester 1995 as cited in CIR 2003).

The World Health Organization has emphasized the use of appropriate labeling for alerting individuals who cannot tolerate sulfites. After receiving and reviewing reports of adverse reactions in certain individuals following ingestion of sulfiting agents used as preservatives in food products, beverages, and fresh fruits and vegetables, the FDA required ingredient labels to list sulfite concentrations in excess of 10 ppm.

The uses of products containing inorganic sulfites are limited to use as indoor fumigants and as fungicidal control agents on grapes. A tolerance limit of 10 ppm (expressed as sulfite) for sulfur dioxide is established in 40 CFR 180.444, and sufficient data are available to support the reassessment of this tolerance. This 10 ppm tolerance is relatively low compared to concentrations of sulfites in many common foods and viewed as "GRAS" by FDA. Further this level is below the level for which FDA requires labeling to alert sulfite-sensitive individuals. Therefore, residues resulting from the postharvest use of sulfur dioxide and sodium metabisulfite on grapes are not expected to be at a level of concern for the general population or any population subgroups.

VII. Drinking Water

Based on the use pattern and fate characteristics of these chemicals, the Agency does not have any drinking water concerns for sulfur dioxide and sodium metabisulfite.

VIII. Aggregate Assessment

The aggregate risk assessment integrates the assessments conducted for dietary, drinking water, and residential exposure if applicable. Currently there are no residential uses for either sulfur dioxide or sodium metabisulfite, as the use of inorganic sulfites is limited to fumigation of postharvest grapes, and bystander inhalation exposure concerns are being addressed in this decision document. Further, no common effects were seen in inhalation and oral toxicity studies. Based on environmental fate information for both chemicals, concentrations of concern are not expected in drinking water. Therefore, based on the uses of sulfur dioxide and sodium metabisulfite, no anticipated presence in drinking water, expected low residues on grapes, and consideration of the presence of sulfites in other common foods as a result of an FDA GRAS determination, the Agency has determined that aggregate exposure to sulfites does not pose a risk concern.

IX. Cumulative Exposure

Section 408(b)(2)(D)(v) of the FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider "available information" concerning the cumulative effects of a particular pesticide's residues and "other substances that have a common mechanism of toxicity." EPA does not have, at this time, available data to determine whether inorganic sulfites have a common mechanism of toxicity with other substances. Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, EPA has not made a common mechanism of toxicity finding as to inorganic sulfites and any other substances, and inorganic sulfites do not appear to produce a toxic metabolite produced by other substances.

For the purposes of this tolerance action, therefore, EPA has assumed that inorganic sulfites do not have a common mechanism of toxicity with other substances. For information regarding the

Agency's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see the policy statements released by EPA's Office of Pesticide Programs concerning common mechanism determinations and procedures for cumulating effects from substances found to have a common mechanism on EPA's website at <http://www.epa.gov/pesticides/cumulative/>.

X. Human Health Risk Characterization

Taking into consideration all available information on sulfur dioxide and sodium metabisulfite, including the specific use pattern and limited exposure potential, FDA's classification of generally recognized as safe (GRAS), as well the historical presence of sodium metabisulfite in cosmetics and hair care products, the use of sulfur dioxide and sodium metabisulfite on postharvest grapes is unlikely to pose a significant risk to the general population or any population subgroup. Potential bystander exposure concerns have been addressed, and anticipated occupational exposures are not expected to pose a risk of concern to workers.

XI. Ecological Risk Assessment

Sulfur dioxide (SO_2) is a nonflammable, colorless gas. It is very soluble in water, with its solubility varying from 5.88 % at 104 °F to 22.9% at 32 °F. In moist air or fogs, it combines with water to form sulfurous acid (H_2SO_3), but it is only very slowly oxidized to sulfuric acid. Sulfur dioxide has a high vapor pressure (3,000 mm Hg at 20°C) and, thus is typically present in a gaseous phase. It can be absorbed in soil, with uptake being dependent on the pH and moisture content of the soil (ATSDR, 1998a). The Environmental Fate and Effects Division (EFED) has reported that the only environmental fate data potentially needed for sulfur dioxide would be a hydrolysis study; however, the Agency has determined that the chemistry of sulfur dioxide is so well documented in the open literature that an additional study is not necessary (EPA, 1993b). Sodium metabisulfite dissolves in water and forms sodium cations, disulfite anions and sulfur dioxide (OECD, 2001).

Concentration of sulfur dioxide as low as 1-2 ppm have been reported to cause severe stress to green plants, and dissolved sulfur dioxide could be toxic to aquatic life. A few acute toxicity tests for sodium metabisulfite have been reported. The 96-hour LC_{50} was 100 mg/L for fish and the 72-hr EC_{50} for algae was 48.1 mg/L. An acute 48-hr EC_{50} for daphnids has been reported to be 88.76 mg/L and a chronic NOEC of >10 mg/L was reported. In addition, a memo from the Ecological Effects Branch of EFED (EPA 1992), stated that all ecotoxicological studies for the indoor food uses of sodium bisulfite were waived, as it was determined that there would be little likelihood of a hazard to non-target organisms. Therefore, based on the high vapor pressure, the current use pattern (indoor food-use) and limits established for sulfur dioxide release in this decision document, the Agency has no ecological risk concerns resulting from the pesticidal use of sulfur dioxide and sodium metabisulfite.

XII. Tolerance Reassessment

The Agency is proposing no changes in the level or definition of the existing tolerance. Therefore, the current tolerance established at 40CFR 180.444 for sulfur dioxide residues (expressed as sulfite) in grapes is now considered reassessed under section 408(q) of the FFDCA.

XIII. Labeling for End-Use Products

The following tables have been developed by the Agency, and indicate the required label statements for sulfur dioxide and sodium metabisulfite end-use products:

Table 7. Label Revisions
<i>Label Statements for Sulfur Dioxide End-Use Products</i>
"When treating grapes for <i>Botrytis cinerea</i> (bunch rot/gray mold) or black widow spider in a warehouse fumigation chamber, do not release treated air into the atmosphere containing concentrations of sulfur dioxide in excess of 30 ppm (as determined by a Sensidyne or Kitagawa syringe sampler, or a Draeger handpump)."
"When treating grapes in a truck, trailer or other transport vehicle, do not release treated air into the atmosphere containing concentrations of sulfur dioxide in excess of 2 ppm (as determined by a Sensidyne or Kitagawa syringe sampler, or a Draeger handpump)."
"Sulfur dioxide concentration in transport vehicles must be below 2 ppm before moving over public roads or highways."
"Before moving or using this product, handlers must be trained how to appropriately use respirators which conform to OSHA requirements (described in 29 CFR Part 1910.124) and how to appropriately handle and use sulfur dioxide."
"When making gas applications or checking connections wear a NIOSH/MSHA approved full face respirator with an organic-vapor removing cartridge, in addition to sulfur dioxide-impervious gloves, boots and coveralls over long-sleeved shirt and long pants."
"If a sulfur dioxide concentration of 2 ppm is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved full face respirator with an organic-vapor removing cartridge. If sulfur dioxide concentrations of 10 ppm are exceeded, or when concentrations are unknown, an approved self-contained breathing mask (SCBA) or combination air supplied SCBA respirator must be used by all persons working in the fumigation area."
"Do not perform sulfur dioxide aerations concurrently from multiple chambers."

Table 8. Label Revisions
<i>Label Statements for Sodium Metabisulfite End-Use Products (pad labeling)</i>
"This pad contains sodium metabisulfite which may trigger an asthmatic response in sulfite sensitive individuals."
"This pad must be removed and disposed of prior to displaying grapes for sale. Do not allow consumers access to pads."
"If pad is torn: Carefully dispose of pad, pad contents, and grapes which have contacted pad contents."
"For Disposal: Place pad in a plastic bag, seal bag and place in an outdoor trash receptacle (dumpster)."

XIV. References

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World Health Organization (WHO). Sulfur Dioxide and Sulfite. WHO Food Additives Series 18. International Programme on Chemical Safety.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

THIS PRODUCT IS ACCOMPANIED BY AN APPROVED APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide.....	100.0%
TOTAL.....	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

HARMFUL IF SWALLOWED.

DO NOT SWALLOW OR INHALE.

See Additional precautions in the application manual.

FIRST AID

If inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

If on skin clothing

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If in eyes

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- DO NOT wear contact lenses when working with or around sulfur dioxide.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If swallowed

- (LIQUID SULFUR DIOXIDE)
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting.
- Do not give anything by mouth to an unconscious person.

NOTES: • Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
• In the event of a medical emergency, you may also contact the National Pesticide Information Center at 1-800-858-7378.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

Net Contents See Attached Tag Lbs.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

PRESSURIZED LIQUID GAS

HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF SKIN AND EYES.

Do not breath vapor in high concentration. Do not get liquid in eyes, on skin or clothing. Do not take internally. Wear eye and skin protection necessary to prevent contact when handling. Wash thoroughly after handling and before eating or smoking.

Persons with a history of respiratory problems should avoid exposure to the product.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas or pungent odor. Corrosive in presence of water. Do not spray water on any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage or disposal. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Return empty cylinders freight pre-paid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT

Sulfur Dioxide

TOTAL

BY WEIGHT

100.00%

100.00%

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

HAZARDOUS IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.• Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin clothing	<ul style="list-style-type: none">• Immediately flush contaminated skin with copious amount of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.• DO NOT apply any chemicals or ointments/lotions to damaged skin.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.• DO NOT apply any chemical or ointment to the eyes.• DO NOT wear contact lenses when working with or around sulfur dioxide.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<p>(LIQUID SULFUR DIOXIDE)</p> <ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting.• Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center at 1-800-858-7378.

EPA REG. NO. 11195-1

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

EPA EST NO. 11195-CA-1 or 2

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

SEE APPLICATION MANUAL DESCRIBING USE OF FRUIT DOCTOR SULFUR DIOXIDE - THIS PRODUCT IS ACCOMPANIED BY AN APPROVED APPLICATION MANUAL. READ AND UNDERSTAND THE ENTIRE LABELING (LABEL AND APPLICATION MANUAL) BEFORE USING THIS PRODUCT. CONTACT SNOWDEN ENTERPRISES, INC. TO OBTAIN A REPLACEMENT COPY OF THE APPLICATION MANUAL.

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.

2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, Snowden's liability is limited to replacement of product or refund of purchase price. To the fullest extent permitted by law, the manufacturer shall not be liable for indirect or consequential damages.

Net Contents

See Attached Tag

Lbs.

THE FRUIT DOCTOR

APPLICATION MANUAL

(Must accompany label at point of sale.)

Read and understand the entire labeling (label and application manual)
before using this product.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

DANGER – PELIGRO

PRESSURIZED LIQUID GAS KEEP OUT OF REACH OF CHILDREN

Hazardous liquid and vapor under pressure. Inhalation may be fatal or cause serious acute illness. Prolonged or repeated exposure may cause impaired lung function. Do not breathe vapor. Liquid or excessive vapor can cause serious skin or eye injury. Do not get liquid on skin, in eyes or on clothing.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

It is recommended that persons with a history of respiratory problems should not be exposed to sulfur dioxide. Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 – 2 year intervals.

FIRST AID

In all cases of overexposure, get medical attention immediately. Take person to fresh air away from contaminated area.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible. Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin. **DO NOT** apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue. **DO NOT** apply any chemical or ointment to the eyes. **DO NOT** wear contact lenses when working with or around sulfur dioxide. Seek

medical attention immediately. Call a poison control center or doctor for treatment advice.

IF SWALLOWED (LIQUID SULFUR DIOXIDE): Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

NOTES: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical emergency, you may also contact the Nation Pesticide Information Center (NPIC) at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, van, boxcars, and other transport vehicles), it is important to follow requirements for applying Category I materials. It is Snowden Enterprises' recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period.

PROTECTIVE CLOTHING – Wear protective clothing, gloves and boots when handling this product. If braided hoses are in place and connections have all been checked, wear a full-face mask when making gas applications.

If using non-braided hosing, wear full-body clothing impervious to sulfur dioxide, and use gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

RESPIRATORY PROTECTION - If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are Draeger handpump and appropriate detector tube; Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved full-face respirator. This type mask may be used for short exposures of very limited durations, but user must be aware of possible overloading in unmeasured concentrations of SO₂. A NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator should always be available for emergencies.

POSTING OF FUMIGATED WAREHOUSE AREAS

Before fumigation, the applicator must post markings at all entrances of fumigated areas with signs bearing the following statement in English and Spanish:

1. The signal word DANGER/PELIGRO in 2" letters.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.


Any person who transfers a treated commodity to another site without aeration must ensure that the new site is posted until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove posted marking sign(s) when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

POSTING SIGNS (FUMIGANT MARKING) FOR TRUCKS, VANS, AND RAILCARS

Proper fumigant markings must be prominently displayed on all trucks, vans or railcars that have been fumigated with SO₂ prior to transport. The fumigant markings must follow all current required Department of Transportation regulations. Fumigant marking must be displayed so that it can be seen by any person attempting to access the interior of the transport vehicle or freight container. The fumigant marking must be formatted as shown below:

The fumigant marking must consist of red letters on a white background that is at least 30 cm (11.8 inches) wide and at least 25 cm (9.8 inches) high. The fumigant marking must read as follows:

<p style="text-align: center;">DANGER</p> <p style="text-align: center;"></p> <p style="text-align: center;">THIS UNIT IS UNDER FUMIGATION WITH SULFUR DIOXIDE, LIQUEFIED APPLIED ON</p> <p style="text-align: center;">Date _____ Time _____</p> <p style="text-align: center;">DO NOT ENTER</p>
--

The fumigant marking must stay on the truck, van, or railcar until the fumigated container is unloaded and the transport vehicle or freight container has undergone sufficient aeration to assure that it does not pose an unreasonable risk to health and safety (below the threshold concentration of 2.0 ppm).

The applicator must show on the manifest accompanying the load that the trailer has been fumigated with SO₂. The statement on the manifest must show the following:

1. Trailer fumigated with SO₂.
2. The date and the time of fumigation.
3. Name of fumigant used.

AERATION AND RE-ENTRY

After fumigation, treated areas must be aerated until the level of sulfur dioxide is below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe detection device or an equivalent device.). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

STORAGE, HANDLING, AND DISPOSAL

Pesticide Storage – Store in a secure location properly labeled for Category I pesticides. Before use, locate the bottle labeled for the room to be fumigated, which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use. Do not contaminate water, food, or feed by storage or disposal. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location.

Store cylinders upright, secured to a rack or wall or placed in specially designed cases to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders.

When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Do not use cylinders for any other purpose.

Pesticide Disposal – Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc. for proper shipping instructions.

Spill and Leak Procedures – Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this Application Manual.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote air flow through the fruit in the boxes. Pallets of fruit should be stacked to promote airflow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO₂ into the house hose system used for SO₂. The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by Botrytis cinerea. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE FUMIGATION AND STORAGE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use $\frac{1}{4}$ to $\frac{1}{2}$ % gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO₂ through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO₂ saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficacy. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO₂ from the recirculating air to equal the rate of removal by direct venting.

APPLICATION – COLD STORAGE ROOM OR FUMIGATION CHAMBER:

Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the cylinder to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve

and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY - LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use $\frac{3}{4}$ to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION - COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighted, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the cylinder to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

SMALL CYLINDER

GRAPES

For post-harvest use only on grapes held in cold storage to suppress spread of grey mold caused by *Botrytis cinerea*.

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon

after harvest, SO₂ fumigation can be applied in a truck or railcar if the grapes have been gassed three (3) or fewer times.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

For warehouse use, refer to Warehouse Storage section of this Application Manual.

TRUCK FUMIGATION

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc. system. See directions on container case for additional directions for installing truck fumigation kit. Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment. Trucks and/or trailers must be properly aerated before moving over public roads or highways.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

TREATMENT OF GRAPES FOR JUICE OR WINE PRODUCTION

For microbial and/or oxidative control of grape juice during crush (for juice or wine production) and subsequent additions during fermentation and later while barrel aging and/or in preparation for bottling during wine manufacture: During crush add up to 0.5 lbs per ton of grapes being crushed. When making transfer of SO₂ liquid or gas use a braided hose.

FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels use 600-1000 ppm SO₂. Using Gas Cylinder only (no education tube) and a barrel gassing unit with a pressure gauge provided by

Snowden Enterprises. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO₂ probe into the barrel and open the valve for 2-3 seconds. Close valve and extract SO₂ probe and replace bung. Insert SO₂ probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue gassing process as described.

NOTE TO USER; If the liquid SO₂ cylinder (with education tube) is used, the barrel will be damaged.

The SO₂ cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. To do so may rapidly release all of the SO₂ from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO₂ or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Dreager tube, or similar device readings must occasionally be made during the gassing process to assure that the SO₂ concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use NIOSH approved fitted face respirators for a short time or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO₂ detection device.

FUMIGATING CORKS USED IN WINE PRODUCTION

For corks used in wine production:

To fumigate cork bags, use 600-1000 ppm SO₂, use a Gas Cylinder only (no education tube) and cork bag gassing unit equipped with or without a vacuum sealer. The Gas Cylinder and pressure gauge are provided by Snowden Enterprises or a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin in the heat sealing process, introduce SO₂ gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another Gas Cylinder and continue the gassing process. Fumigated corks may be used the day following SO₂ gassing. Any bags thus treated must be labeled as "SO₂ treated".

Revision date 9/2004



Dr Sidney Siemer
<siemer2@sbcglobal.net>
10/26/2004 01:41 PM

To John Bazuin/DC/USEPA/US@EPA
cc
bcc
Subject The Fruit Doctor, 3 labels

Dear John-

Thank you for calling regarding the Fruit Doctor labels. If you have any trouble opening and printing these labels, please let me know and I'll send them as pdf files.

Sincerely,
Terri Aal
Registration Assistant



Siemer & Associates, Inc. Fruit Doctor cylinder label rev 2004.doc Fruit Doctor 1 pg. label rev. 2004.doc



FRUIT DOCTOR Application Manual corks and barrels.doc

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

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ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide.....	100.0%
TOTAL.....	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

HARMFUL IF SWALLOWED.

DO NOT SWALLOW OR INHALE.

See Additional precautions in the application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.• Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin clothing	<ul style="list-style-type: none">• Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.• DO NOT apply any chemicals or ointments/lotions to damaged skin.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.• DO NOT apply any chemical or ointment to the eyes.• DO NOT wear contact lenses when working with or around sulfur dioxide.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	<p>(LIQUID SULFUR DIOXIDE)</p> <ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting.• Do not give anything by mouth to an unconscious person.

NOTES: • Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
• In the event of a medical emergency, you may also contact the National Pesticide Information Center at 1-800-858-7378.

EPA REG. No. 11195-1

EPA EST. No. 11195-CA-1 or 2

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

Net Contents See Attached Tag Lbs.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

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ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide.....	100.0%
TOTAL.....	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER – PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

HARMFUL IF SWALLOWED.

DO NOT SWALLOW OR INHALE.

See Additional precautions in the application manual.

FIRST AID

If inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.

If on skin clothing

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If in eyes

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- DO NOT wear contact lenses when working with or around sulfur dioxide.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

If swallowed

- (LIQUID SULFUR DIOXIDE)
- Call a poison control center or doctor immediately for treatment advice.
 - Have person sip a glass of water if able to swallow.
 - Do not induce vomiting.
 - Do not give anything by mouth to an unconscious person.

NOTES:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- In the event of a medical emergency, you may also contact the National Pesticide Information Center at 1-800-858-7378.

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Net Contents See Attached Tag Lbs.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

DANGER

PRESSURIZED LIQUID GAS

HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF SKIN AND EYES.

Do not breath vapor in high concentration. Do not get liquid in eyes, on skin or clothing. Do not take internally. Wear eye and skin protection necessary to prevent contact when handling. Wash thoroughly after handling and before eating or smoking.

Persons with a history of respiratory problems should avoid exposure to the product.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL AND CHEMICAL HAZARDS

Sulfur dioxide is a non-flammable, whitish colored gas or pungent odor. Corrosive in presence of water. Do not spray water on any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste at low level concentrations.

STORAGE AND DISPOSAL

Pesticide Storage: Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage or disposal. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Return empty cylinders freight pre-paid to Snowden Enterprises, Inc., location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT	BY WEIGHT
Sulfur Dioxide	100.00%
TOTAL	100.00%

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

See additional precautions in the accompanying application manual.

FIRST AID

If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Trained personnel should administer oxygen as soon as possible.• Seek medical attention immediately. Call a poison control center or doctor for further treatment advice.
If on skin clothing	<ul style="list-style-type: none">• Immediately flush contaminated skin with copious amount of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.• DO NOT apply any chemicals or ointments/lotions to damaged skin.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Completely flush all eye and lid tissue.• DO NOT apply any chemical or ointment to the eyes.• DO NOT wear contact lenses when working with or around sulfur dioxide.• Seek medical attention immediately. Call a poison control center or doctor for treatment advice.
If swallowed	(LIQUID SULFUR DIOXIDE) <ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting.• Do not give anything by mouth to an unconscious person.

NOTES: • Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
• In the event of a medical emergency, you may also contact the National Pesticide Information Center at 1-800-858-7378.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**SEE APPLICATION
MANUAL DESCRIBING USE
OF FRUIT DOCTOR SULFUR
DIOXIDE - THIS PRODUCT IS
ACCOMPANIED BY AN
APPROVED APPLICATION
MANUAL. READ AND
UNDERSTAND THE ENTIRE
LABELING (LABEL AND
APPLICATION MANUAL)
BEFORE USING THIS
PRODUCT. CONTACT
SNOWDEN ENTERPRISES,
INC. TO OBTAIN A
REPLACEMENT COPY OF THE
APPLICATION MANUAL.**

CONDITIONS OF SALE

1. Snowden Enterprises, Inc. warrants that this product consists of the ingredients specified and is reasonably fit for the purpose stated on this label when used in accordance with the directions under normal conditions of use. No one other than an officer of Snowden is authorized (and such authorization must be in writing) to make any other warranty, guarantee or direction concerning this product.

2. Because the time, place, rate of application, weather conditions and normal or abnormal conditions of use or storage are beyond Snowden's control, Snowden's liability is limited to replacement of product or refund of purchase price. To the fullest extent permitted by law, the manufacturer shall not be liable for indirect or consequential damages.

EPA REG. NO. 11195-1

EPA EST NO. 11195-CA-1 or 2

Manufactured for:
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

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